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She tells her love while half asleep

Young, Michael

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She tells her love while half asleep

Michael Young

Instrumentation

alto flute
mezzo soprano
harp
viola
violoncello

all instruments are notated in C

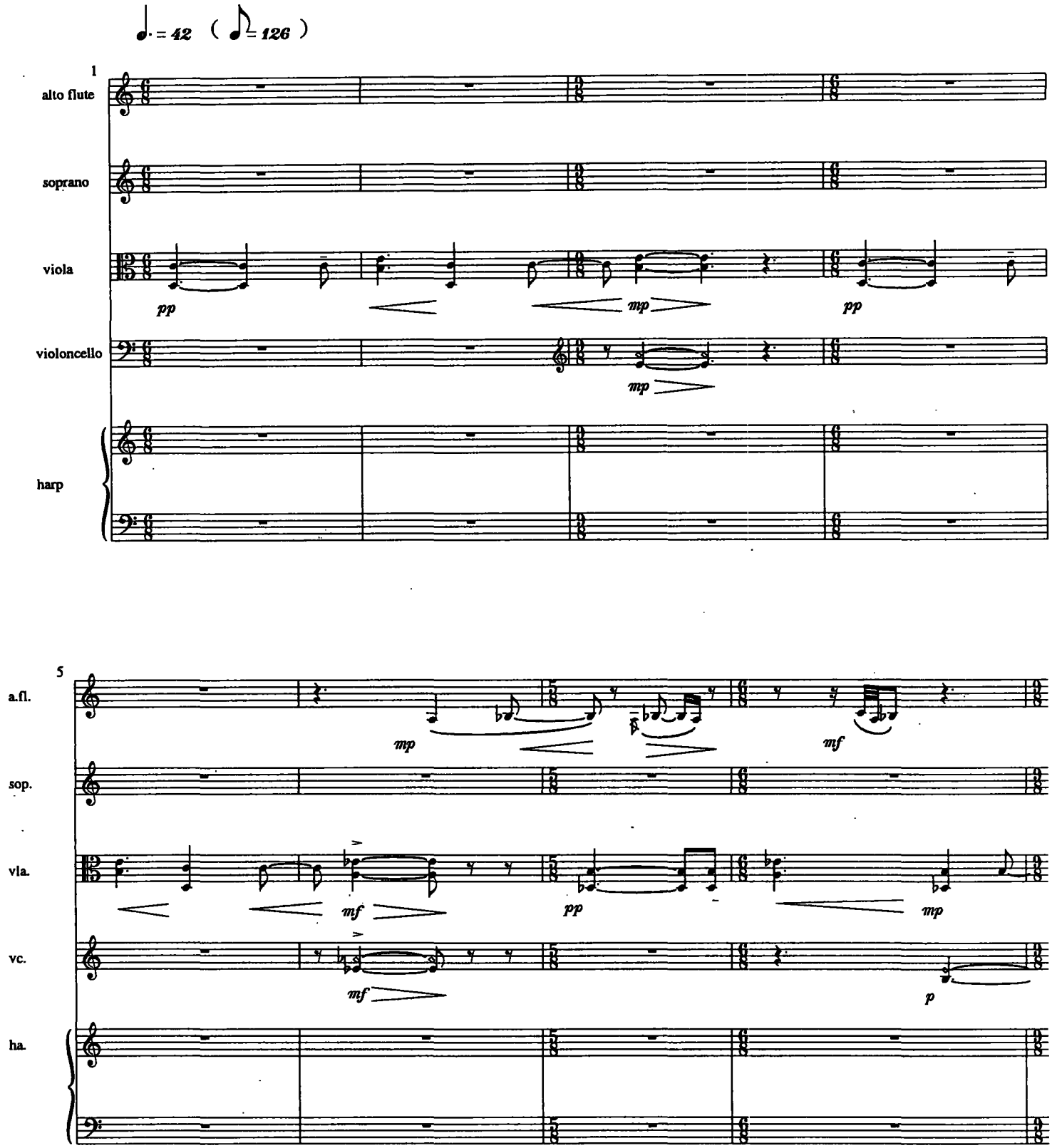
Text

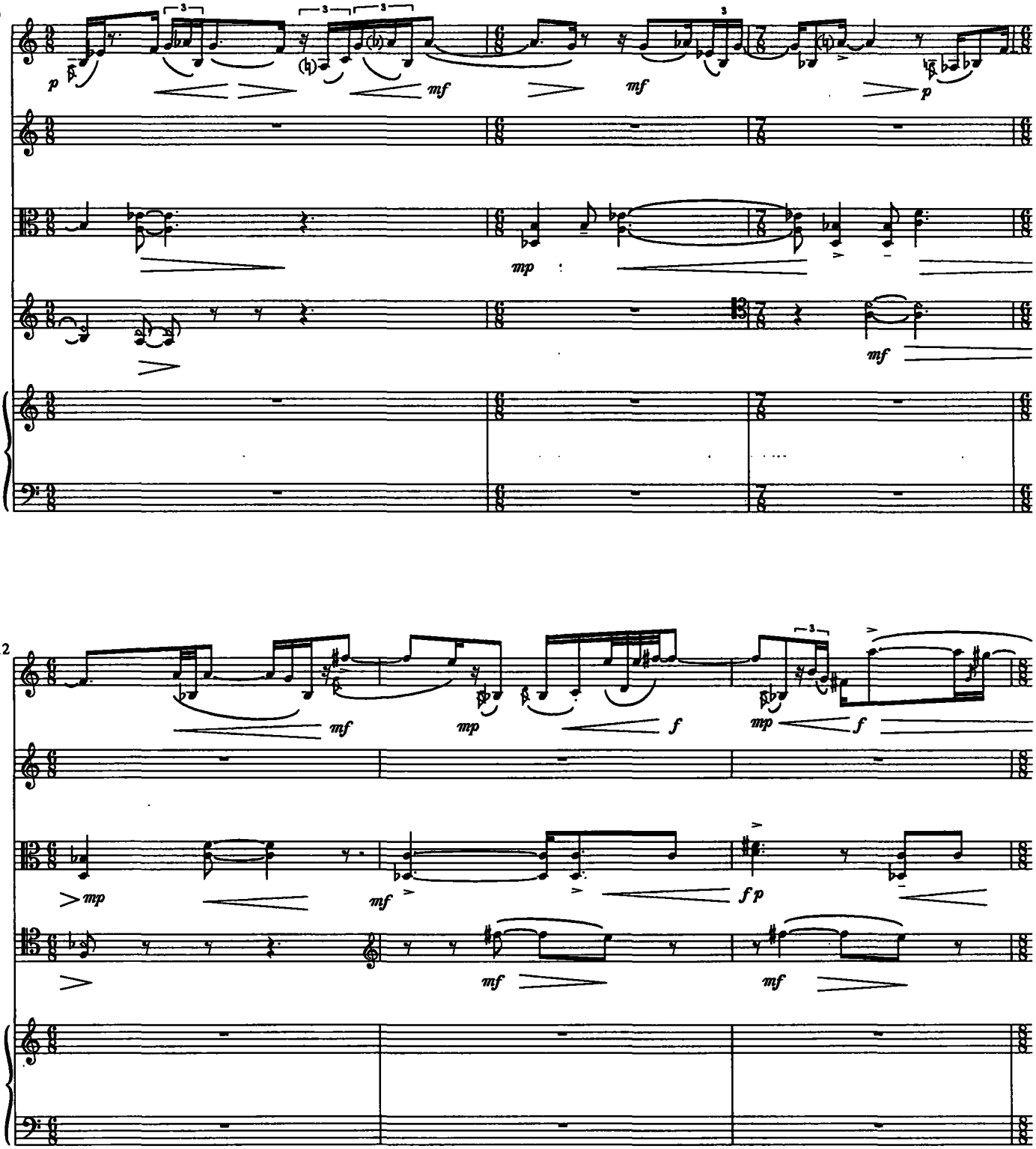
She tells her love while half asleep,
In the dark hours,
With half words whispered low:
As Earth stirs in her winter sleep
And puts out grass and flowers
Despite the snow,
Despite the falling snow.

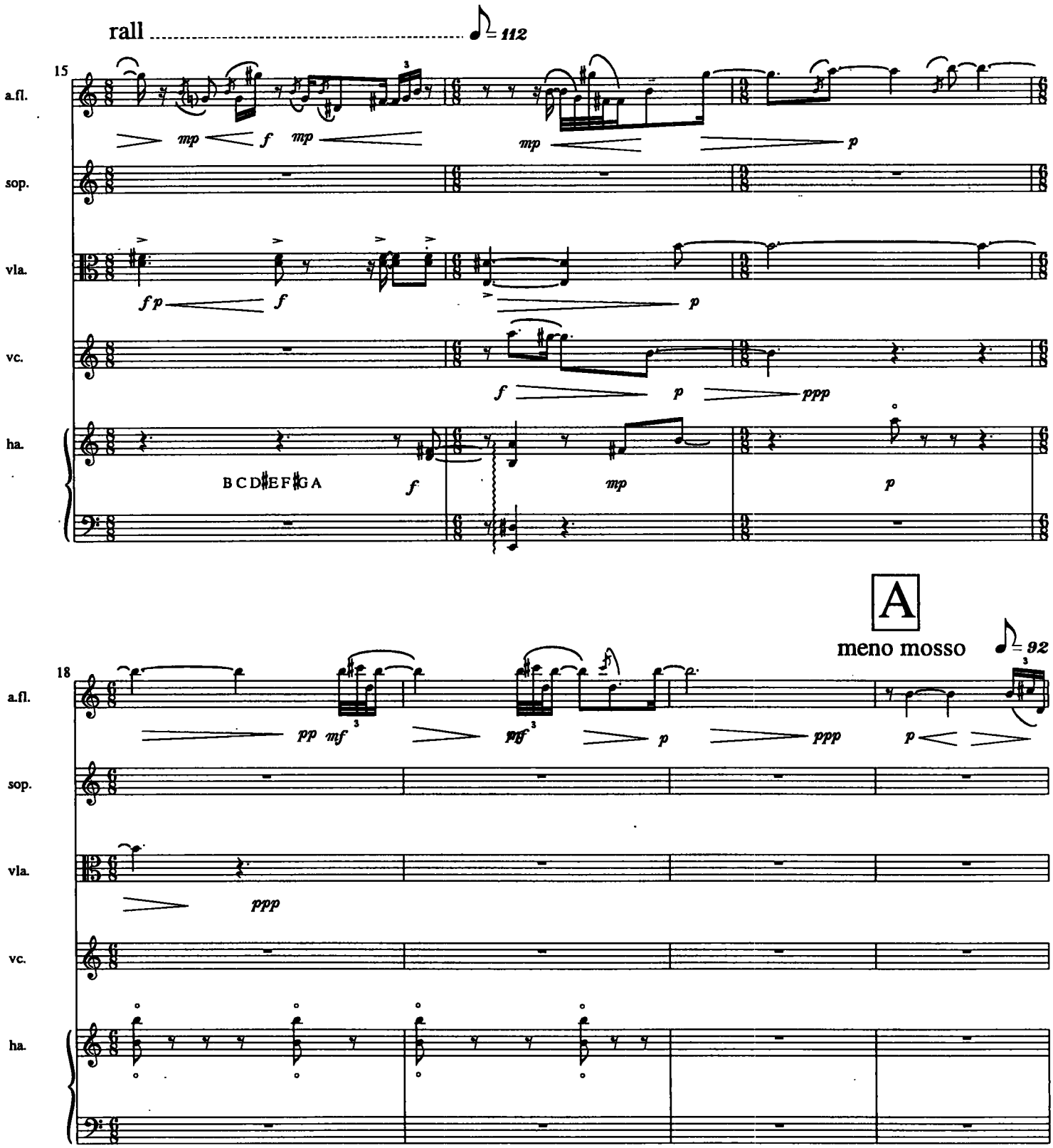
(Robert Graves)

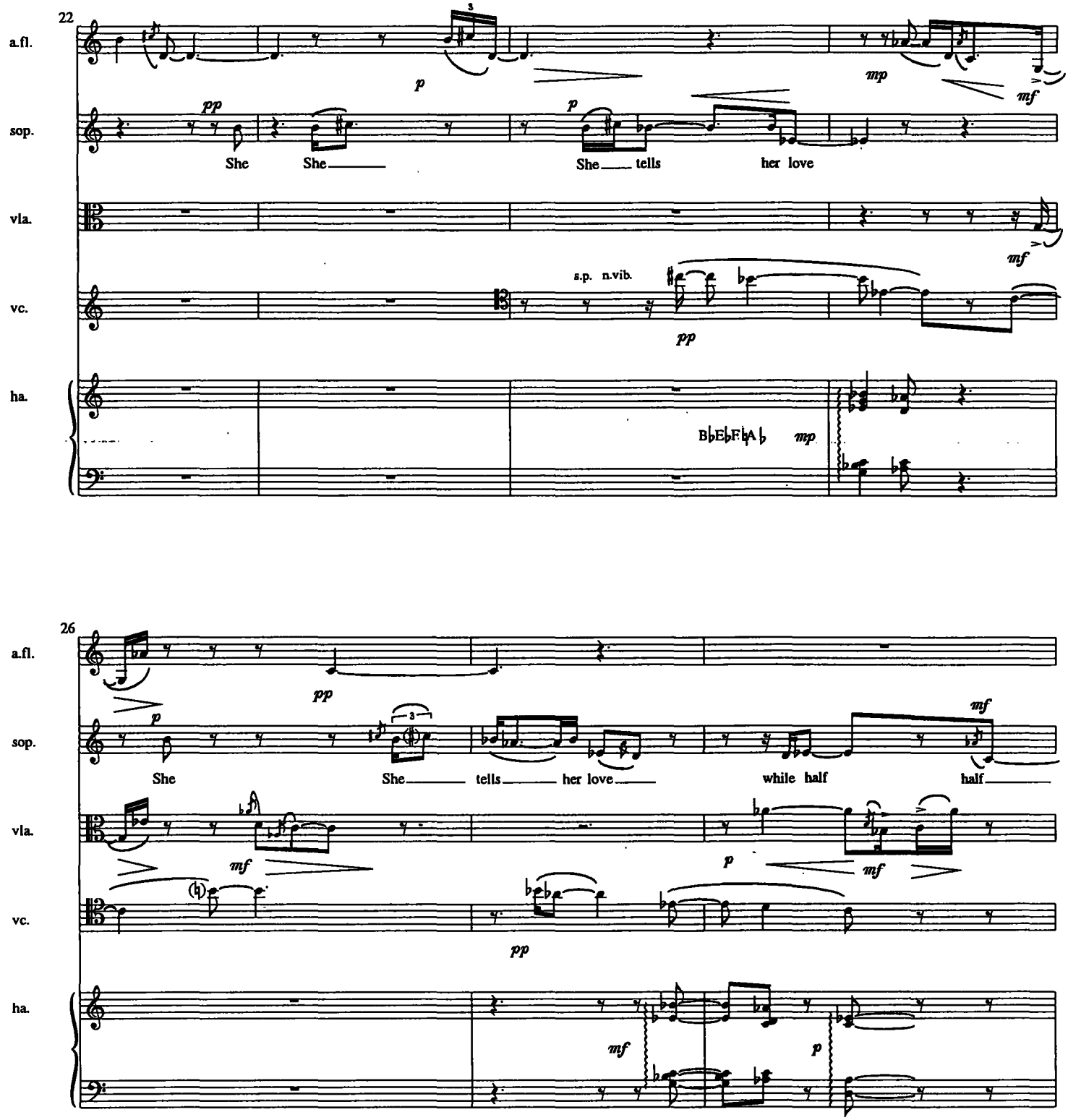
She tells her love while half asleep

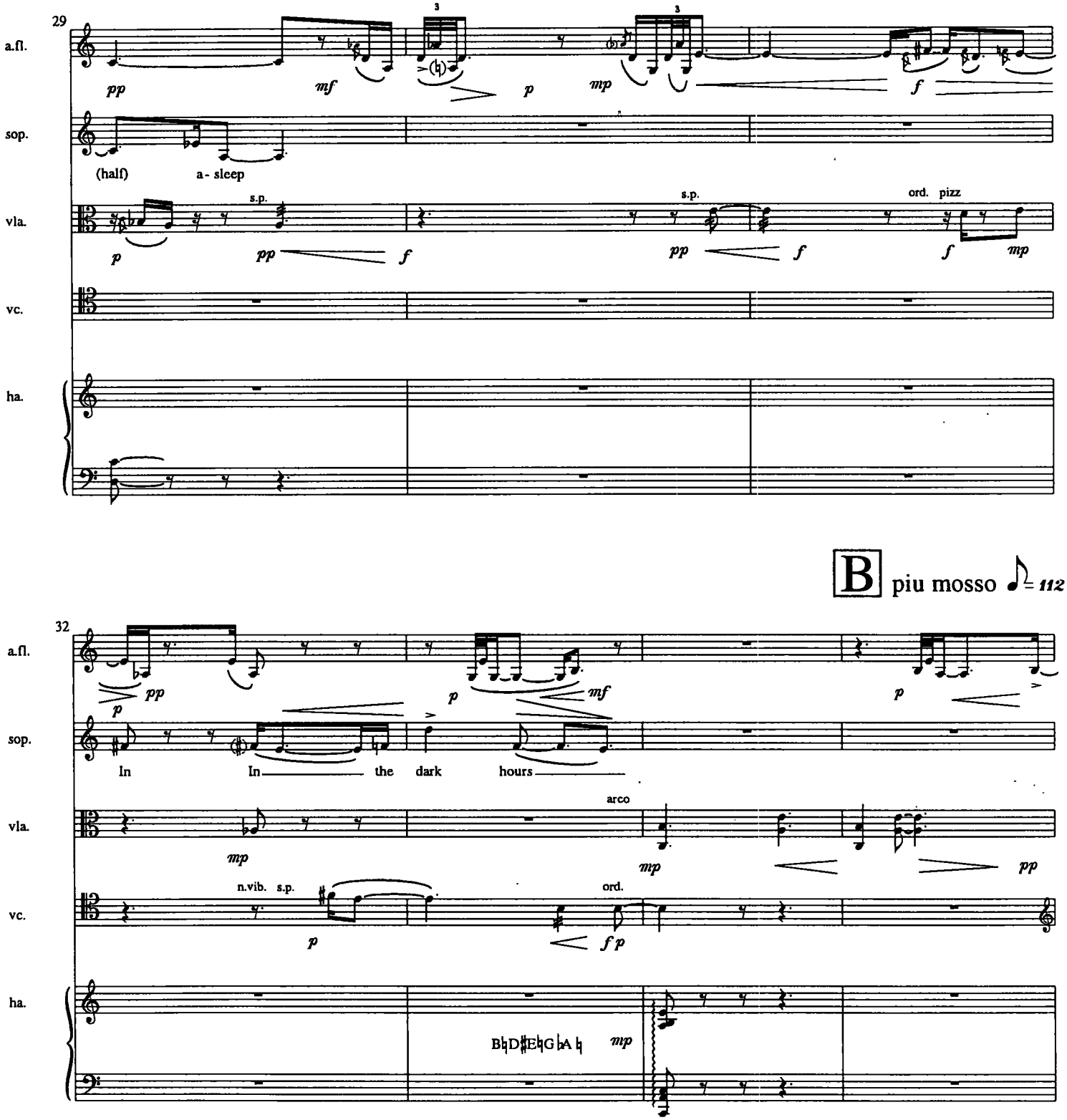
Michael Young

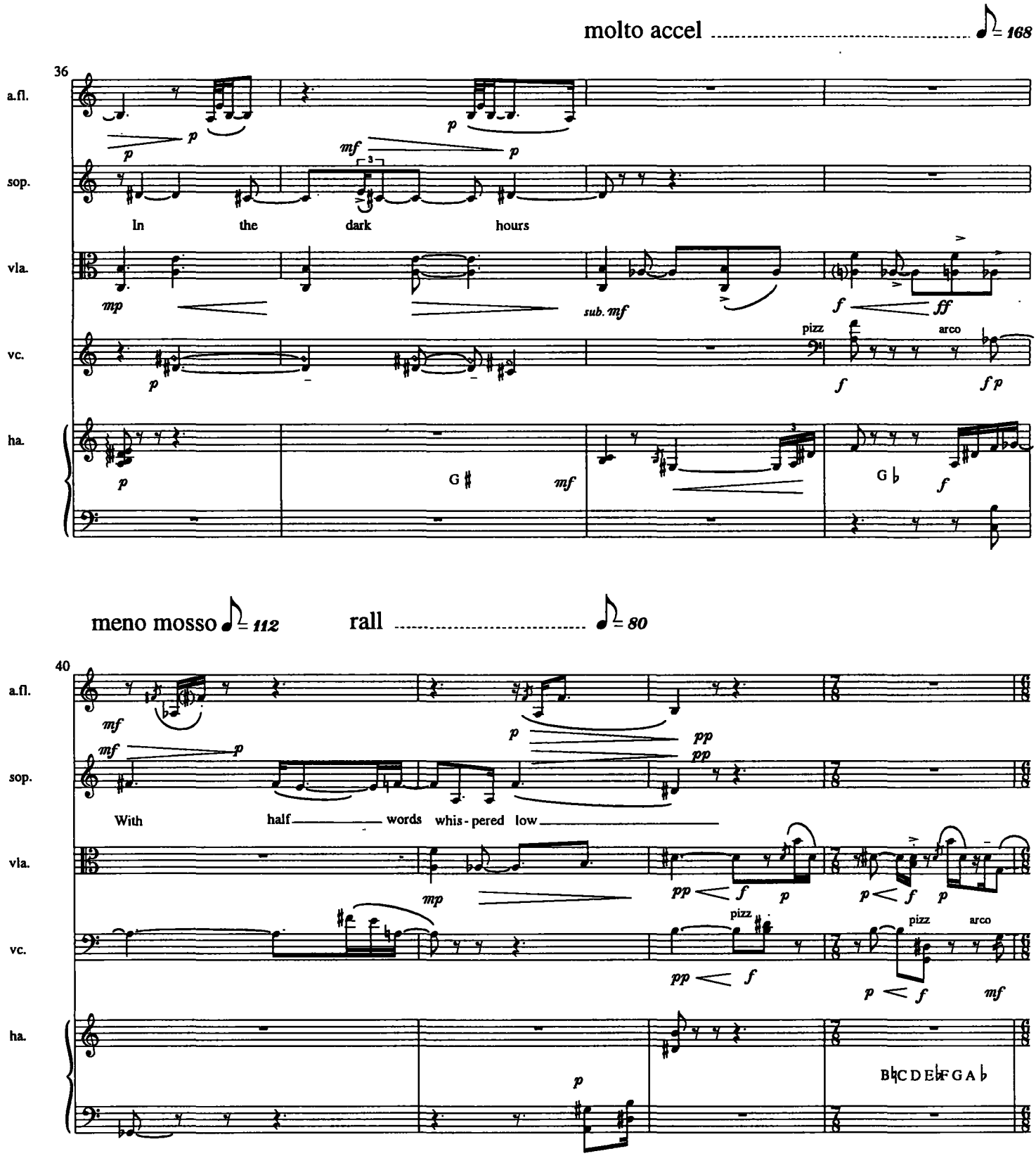


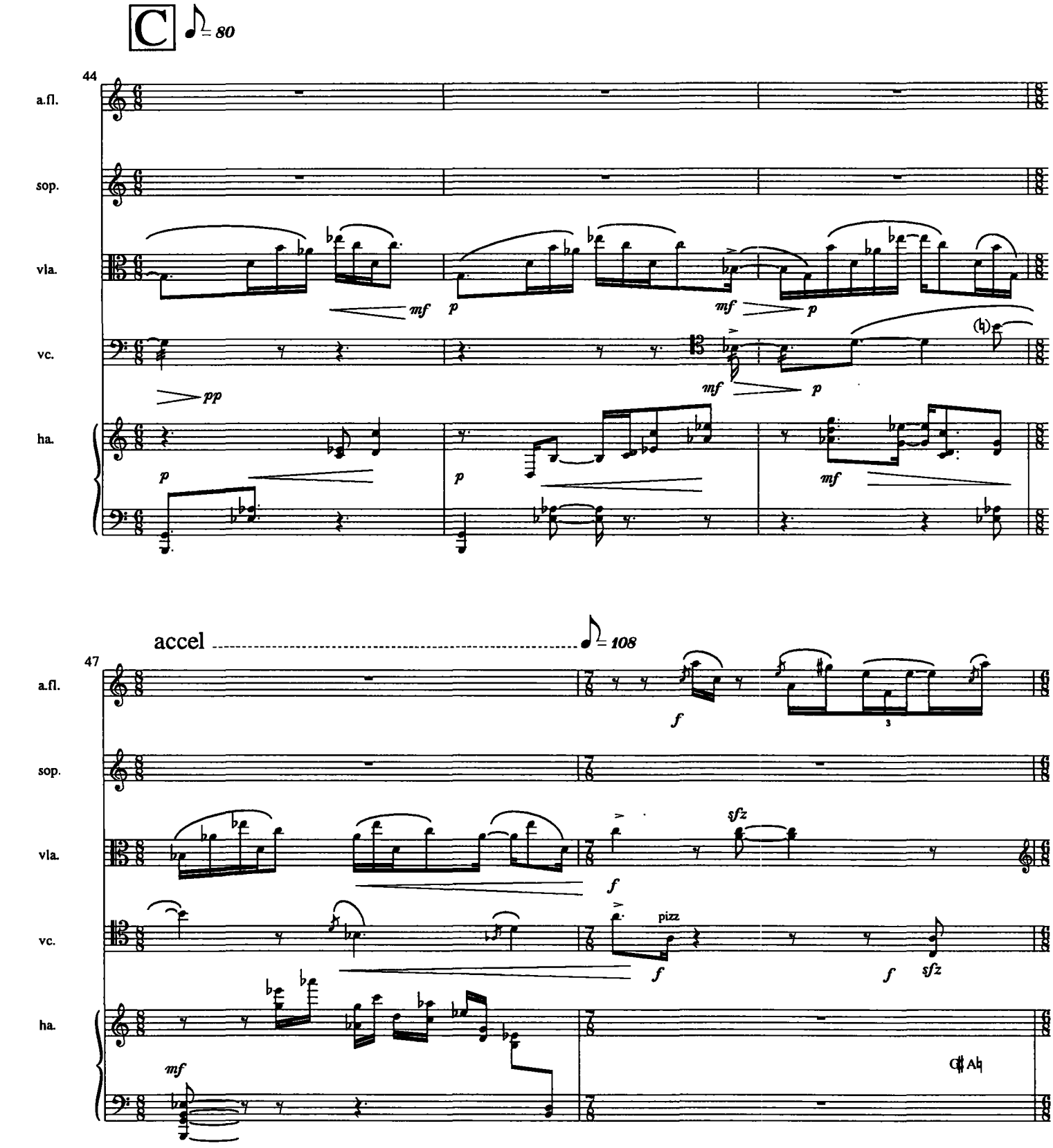

9
a.fl.
sop.
vla.
vc.
ha.
p
mf
mf
p
mp
mf
12
a.fl.
sop.
vla.
vc.
ha.
mf
mp
f
mp
f
mp
mf
f p
mf
mf

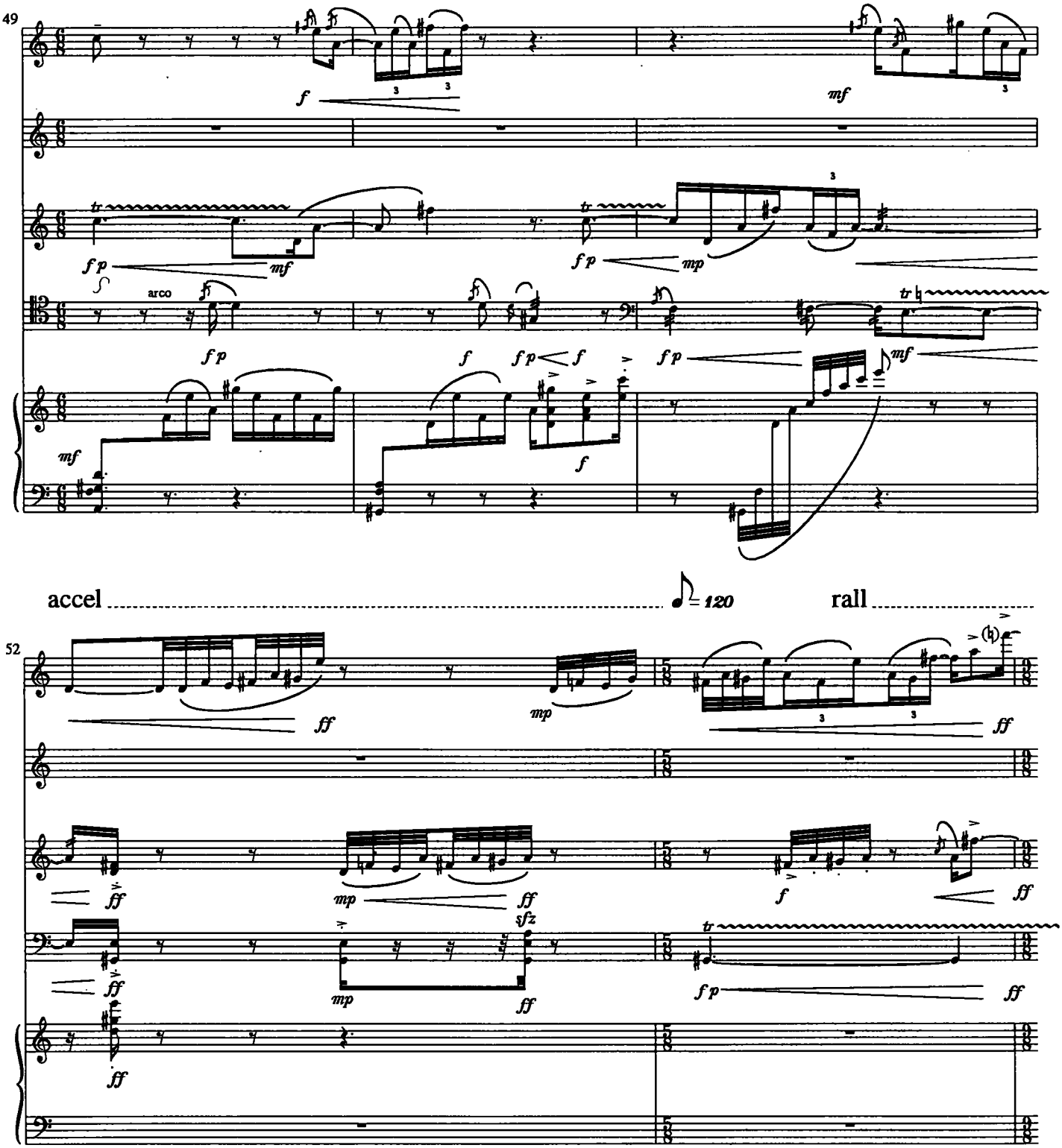

rall
112
15
a.fl.
sop.
vla.
vc.
ha.
mp f mp
mp
p
fp f
p
f p ppp
BCD♯EF♯GA
f
mp
p
A
meno mosso
92
18
pp mf
pf
p
ppp
p
ppp

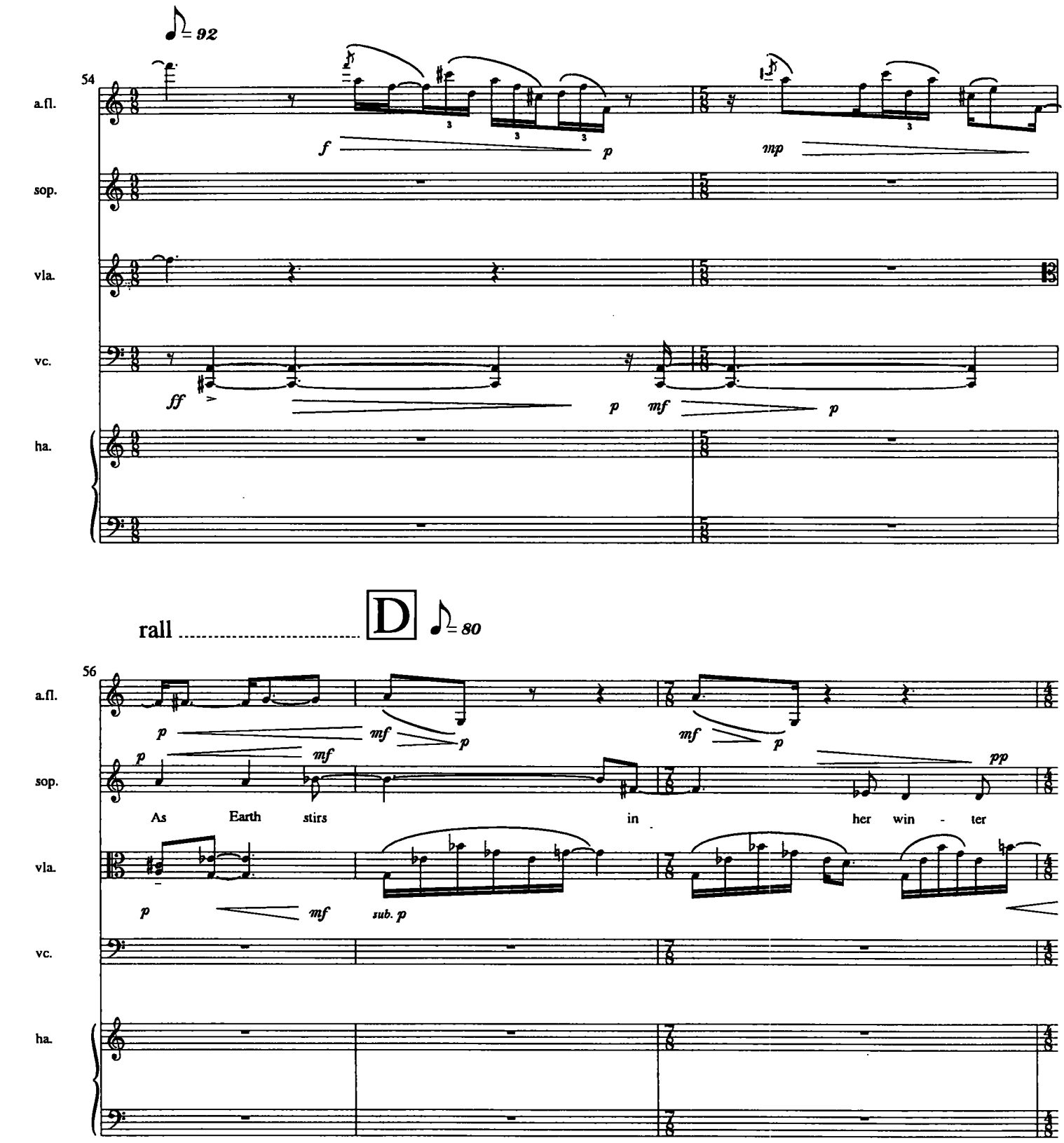

22
a.fl.
sop.
vla.
vc.
ha.
p
mp
mf
pp
She
She
She tells
her love
s.p. n.vib.
BbEbFbAb
26
She
She
tells
her love
while half
half


29
a.fl.
sop.
vla.
vc.
ha.
pp
mf
p
mp
f
(half)
a- sleep
s.p.
pp
f
s.p.
pp
f
ord. pizz
f
mp
B piu mosso ♩= 112
32
a.fl.
sop.
vla.
vc.
ha.
pp
p
p
mf
p
In
In
the
dark
hours
arco
mp
mp
pp
n.vib. s.p.
ord.
p
f p
B♭D♯E♭G♭A♭
mp

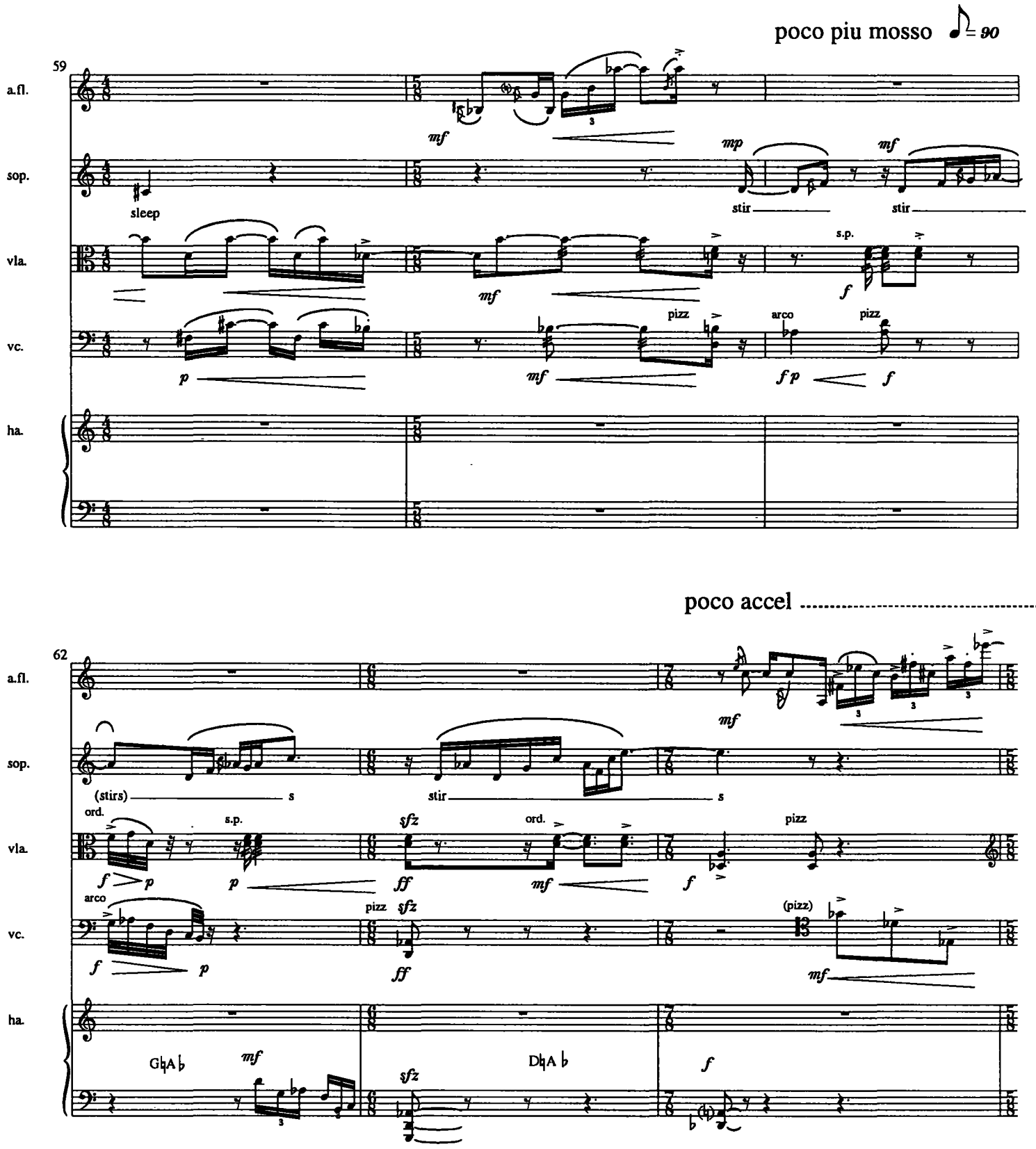

molto accel
♩= 168
36
a.fl.
sop.
vla.
vc.
ha.
In the dark hours
sub. mf
pizz
arco
G♯
G♭
meno mosso ♩= 112
rall
♩= 80
40
With half words whis-pered low
B♮C D E♭F G A♭

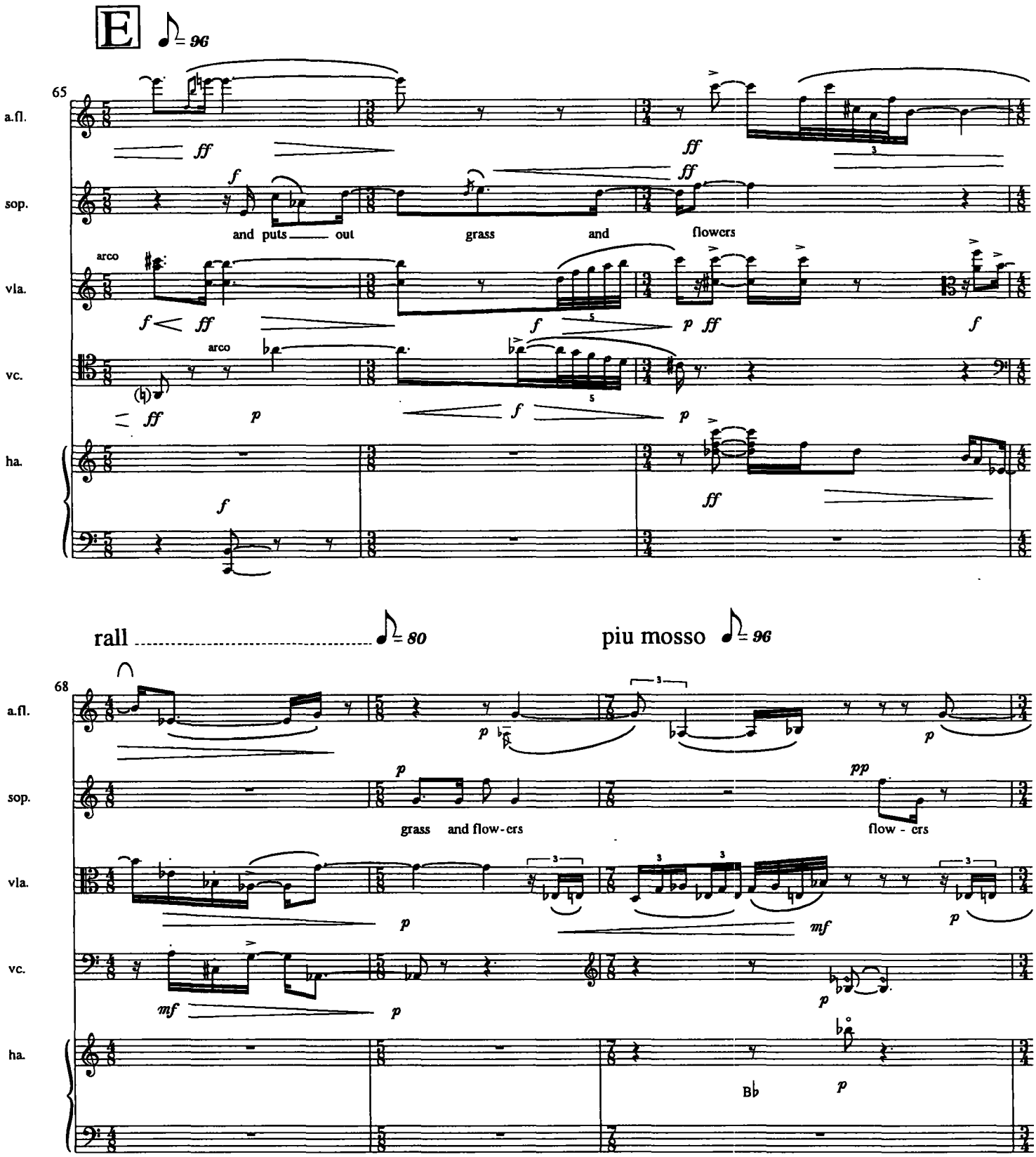

C
♪ = 80
44
a.fl.
sop.
vla.
vc.
ha.
mf
p
mf
p
pp
mf
p
p
mf
accel
♪ = 108
47
f
3
sfz
f
pizz
f
f
sfz
mf

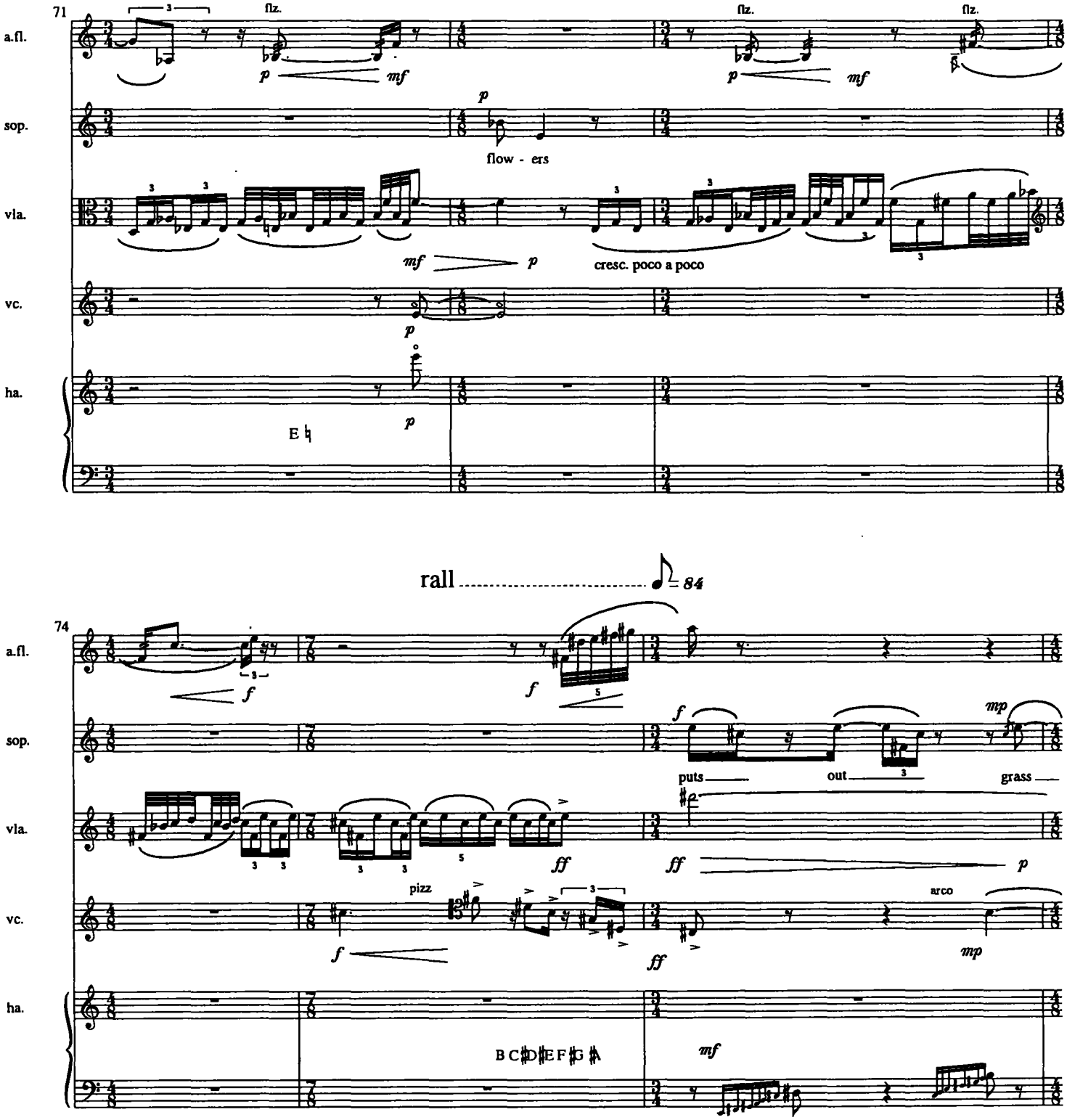

49
a.fl.
sop.
vla.
vc.
ha.
arco
accel
120
rall
52

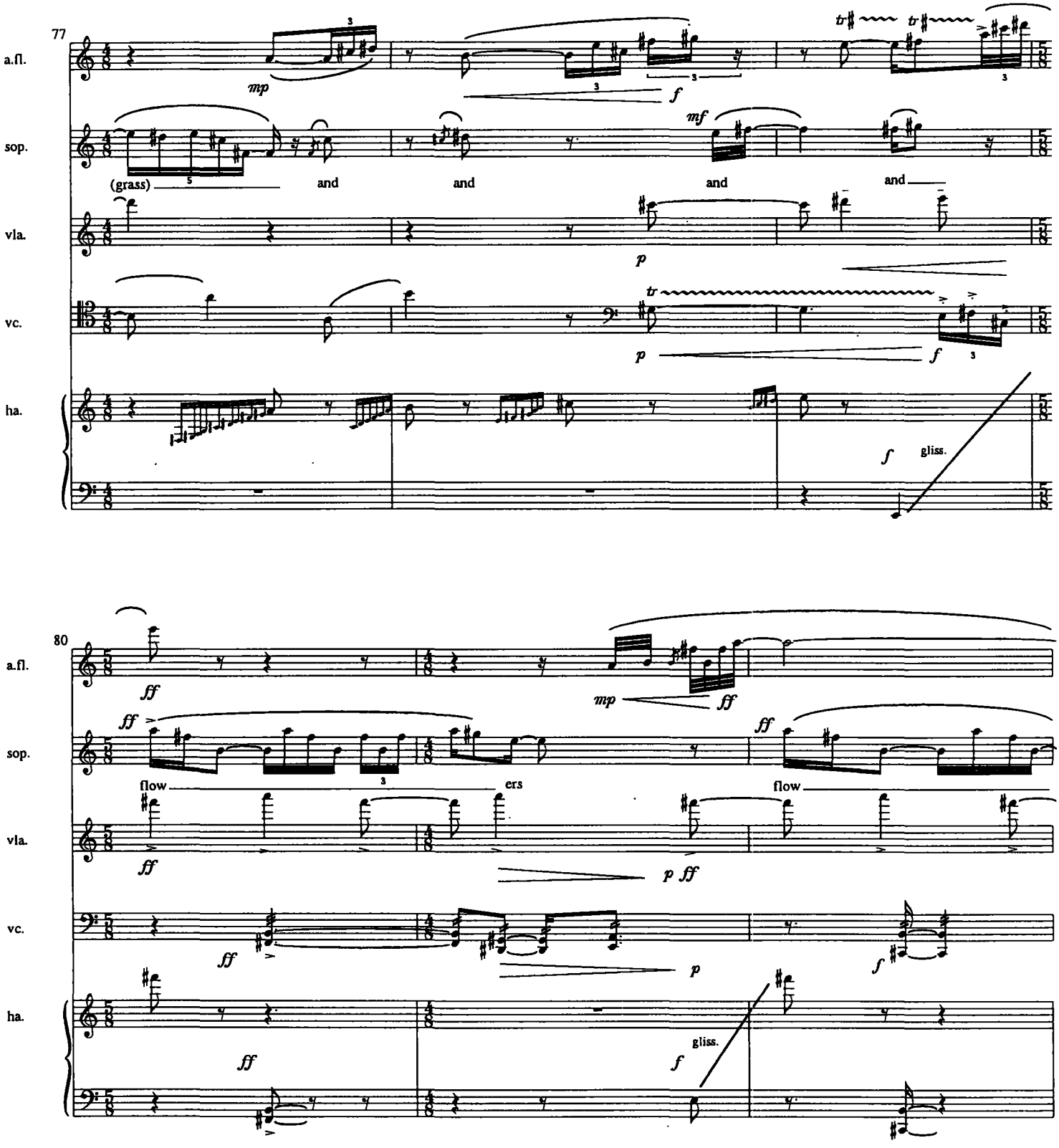

54
♩= 92
a.fl.
sop.
vla.
vc.
ha.
f
p
mp
ff
p
mf
p

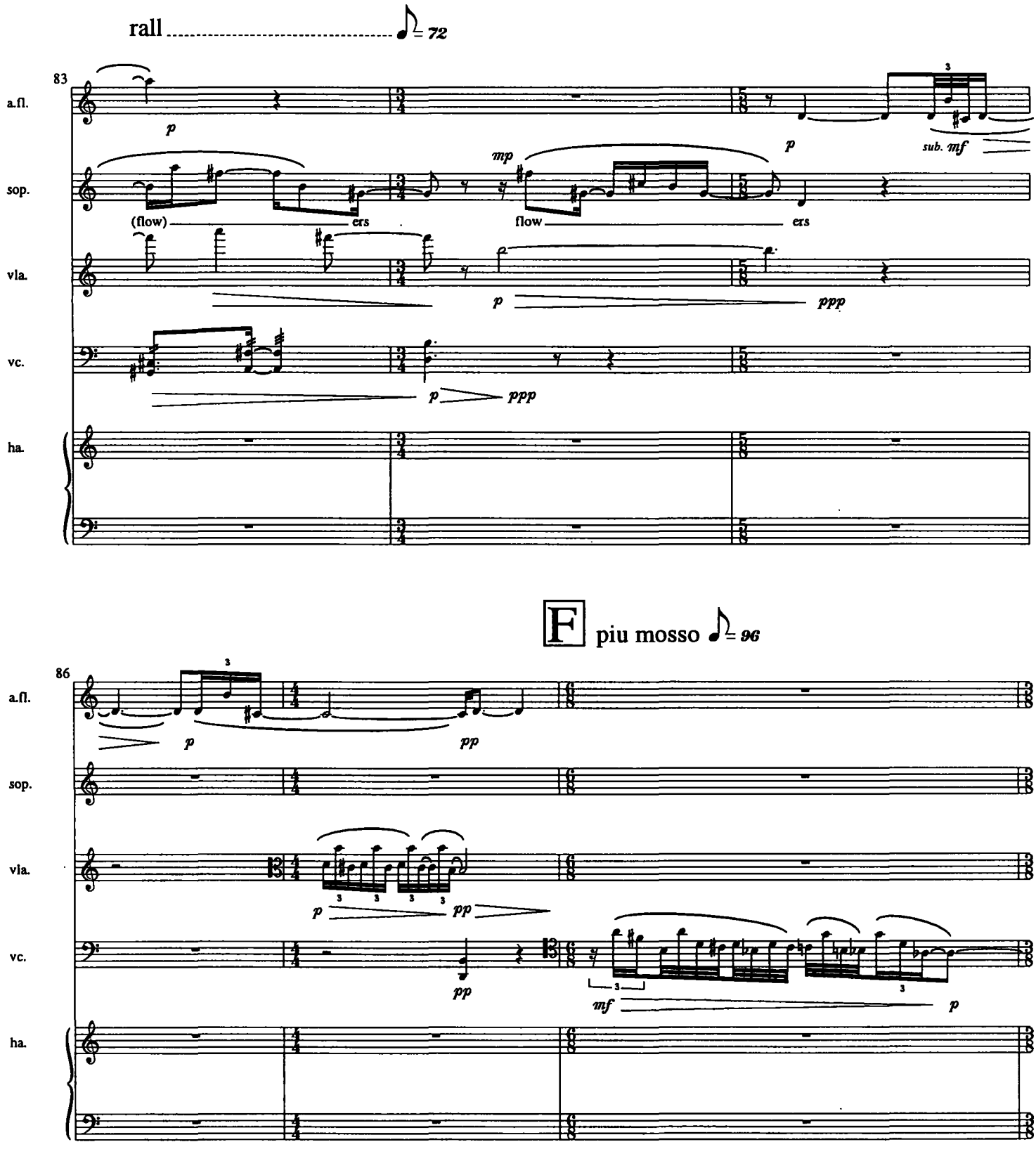
rall .....
D
♩= 80
56
a.fl.
sop.
vla.
vc.
ha.
p
mf
p
mf
p
p
mf
pp
As Earth stirs in her win - ter
p
mf
sub. p

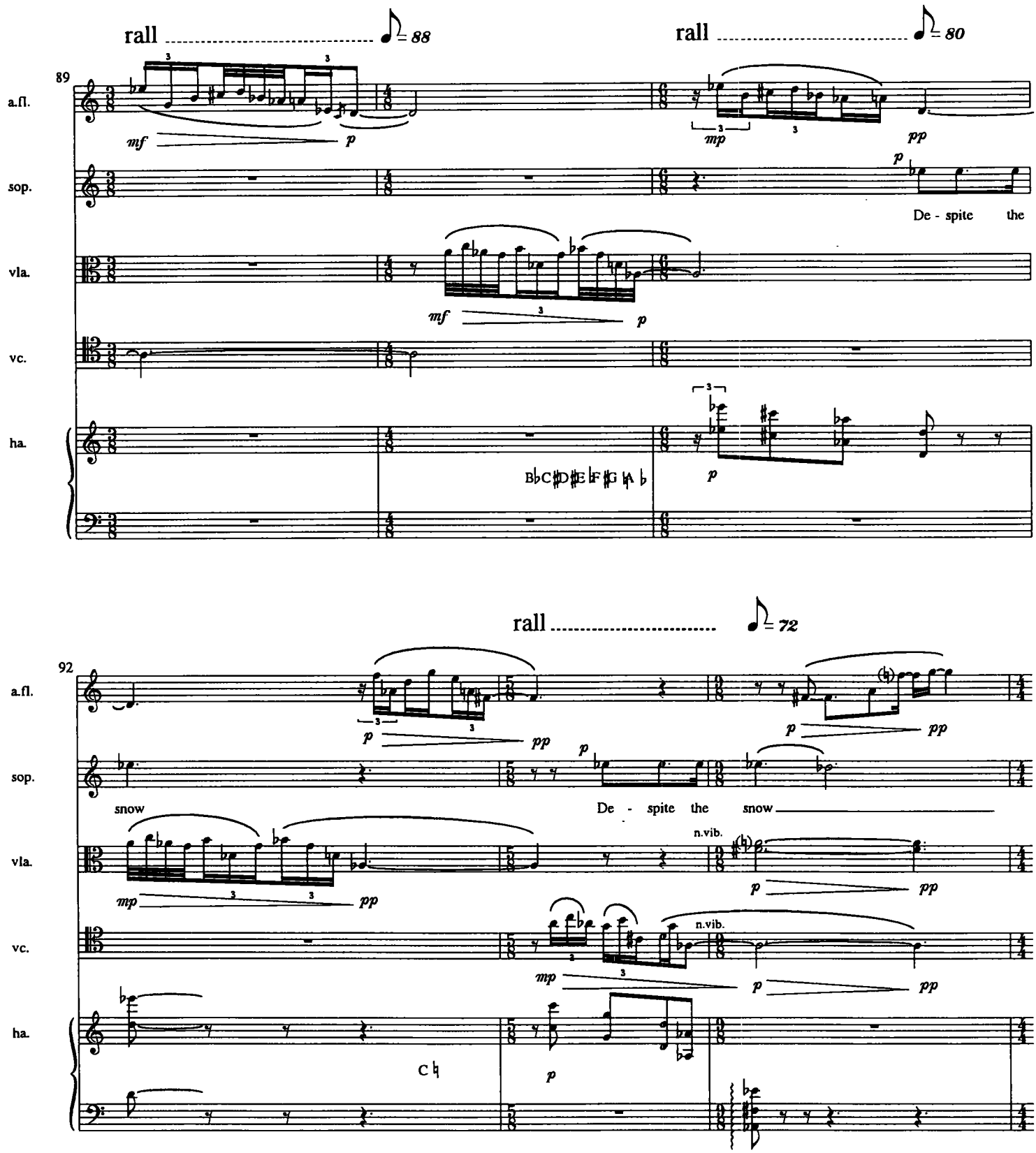

poco piu mosso
♩= 90
59
a.fl.
sop.
vla.
vc.
ha.
mf
mp
mf
sleep
stir
stir
s.p.
f
mf
pizz
arco
pizz
p
mf
f p
f
poco accel
62
a.fl.
sop.
vla.
vc.
ha.
mf
(stirs)
s
stir
s
ord.
s.p.
sfz
ord.
pizz
f p
p
ff
mf
f
arco
pizz
sfz
(pizz)
f
p
ff
mf
G♮A♭
mf
sfz
D♮A♭
f

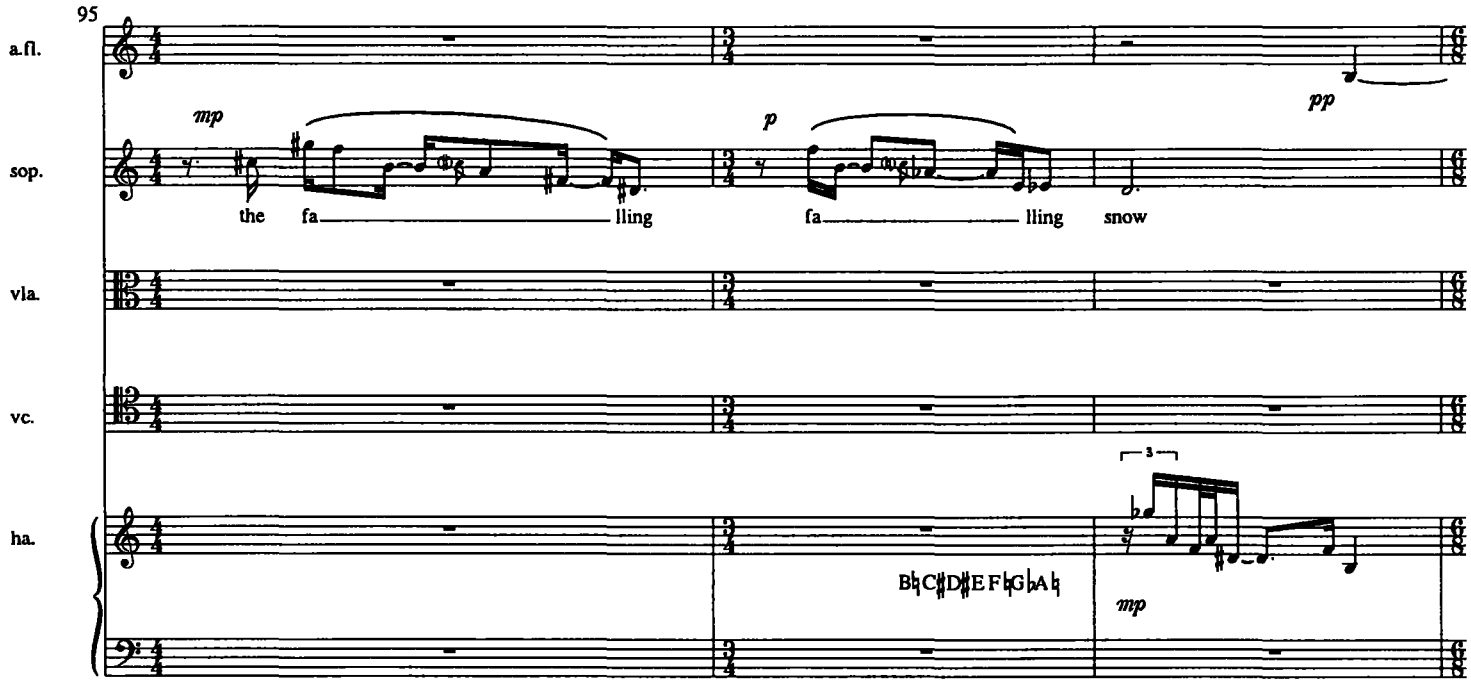

E
♪ = 96
65
a.fl.
sop.
vla.
vc.
ha.
and puts out grass and flowers
arco
arco
rall ..... ♪ = 80
piu mosso ♪ = 96
68
grass and flow-ers
flow - ers
Bb

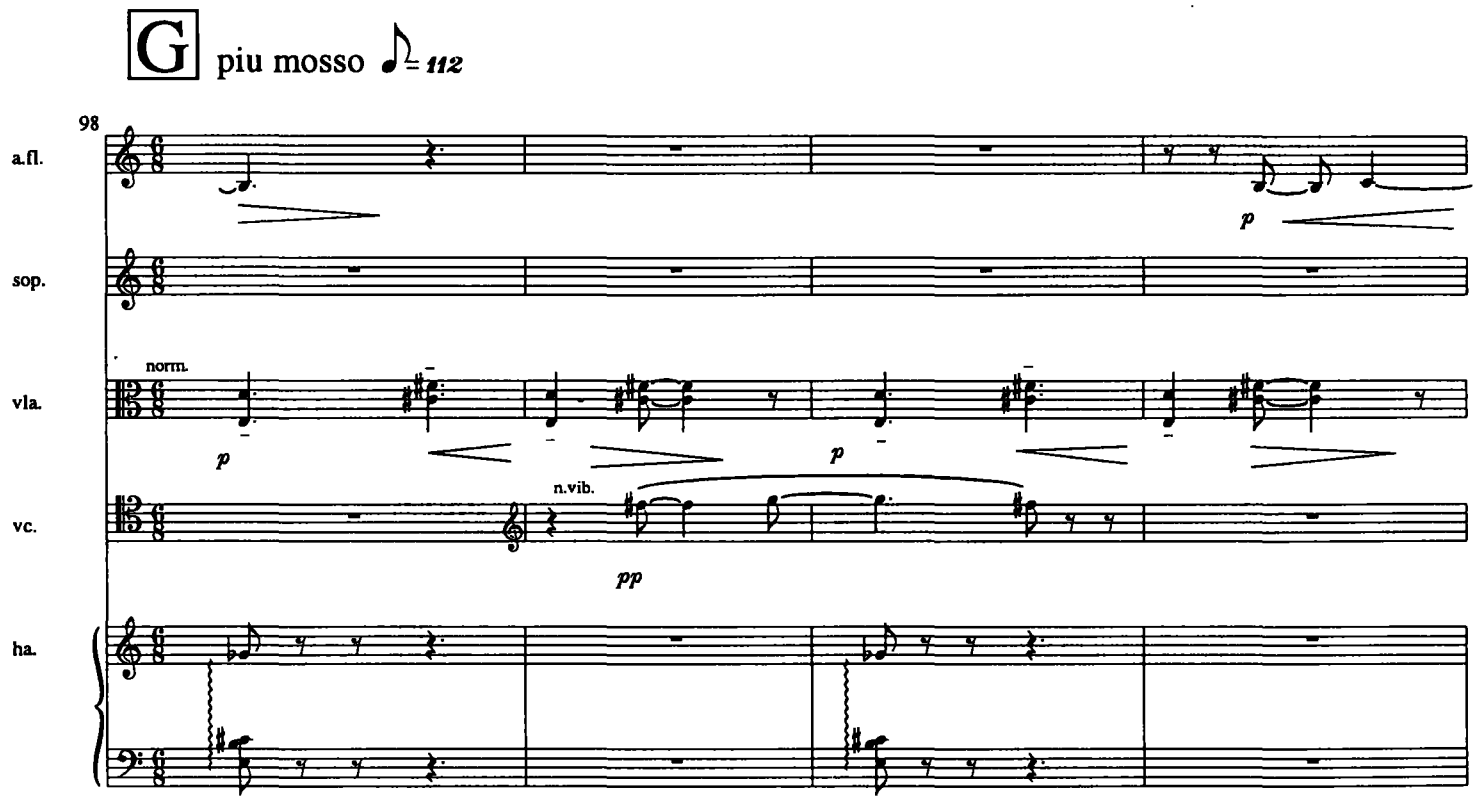

71
a.fl.
sop.
vla.
vc.
ha.
flz.
flz.
flz.
p
mf
p
mf
p
flow - ers
mf
p
cresc. poco a poco
p
p
E ♮
rall
84
74
a.fl.
sop.
vla.
vc.
ha.
f
f
5
f
puts
out
3
grass
mp
ff
ff
p
pizz
f
ff
arco
mp
B C♯D♯E F♯G♯A
mf

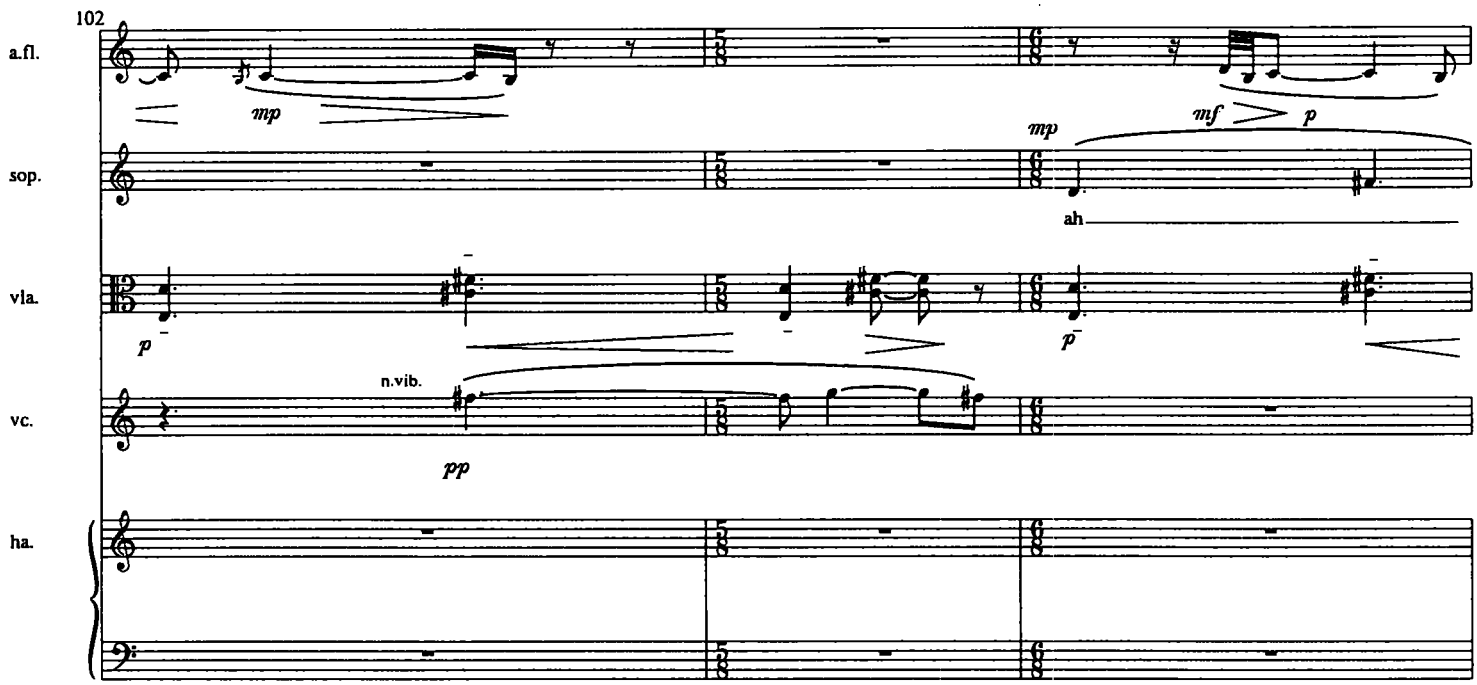

77
a.fl.
sop.
vla.
vc.
ha.
mp
f
mf
p
(grass)
and
and
and
and
gliss.
80
ff
mp
flow
ers
flow
p ff
gliss.


rall
♩= 72
83
a.fl.
sop.
vla.
vc.
ha.
p
mp
p
sub. mf
(flow)
ers
flow
ers
p
ppp
p
ppp
F
piu mosso
♩= 96
86
p
pp
p
pp
pp
mf
p

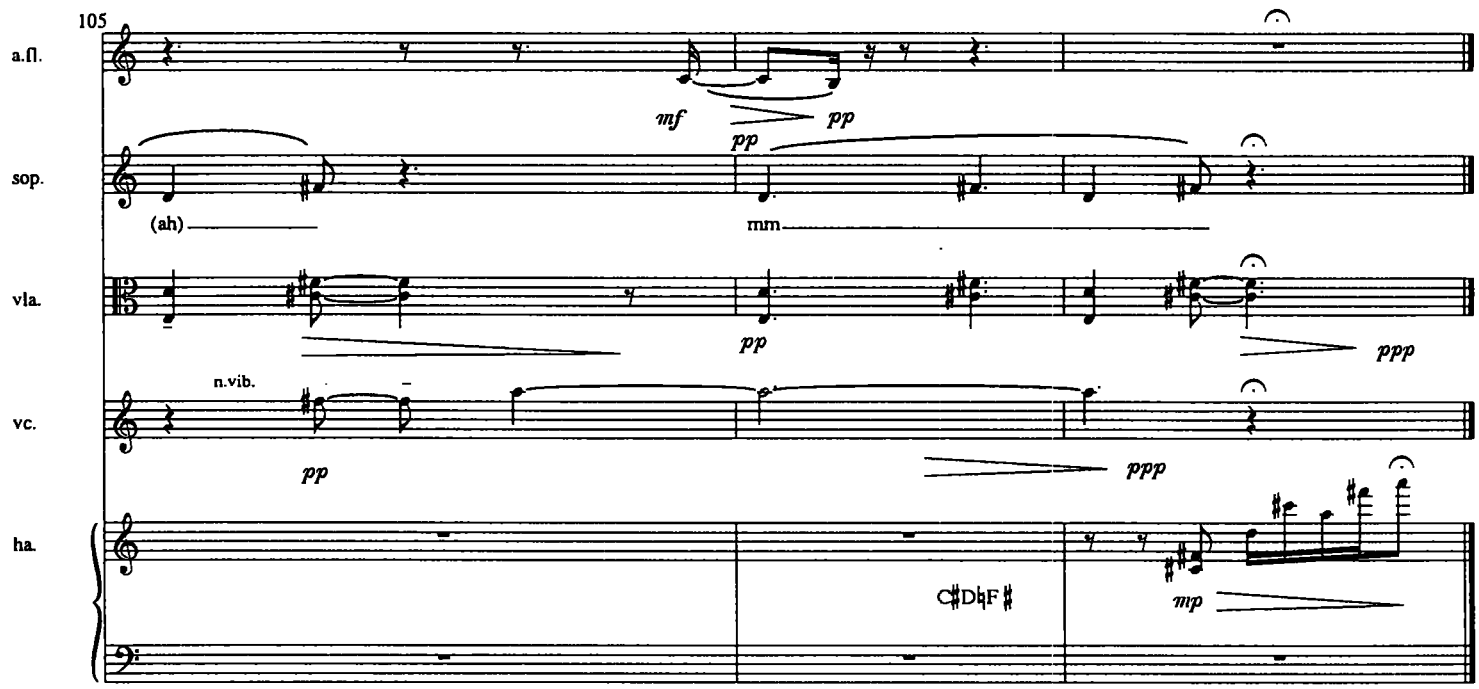

rall ♩= 88
rall ♩= 80
89
a.fl.
sop.
vla.
vc.
ha.
mf
p
mp
pp
De - spite the
B♭C♯D♯E♮F♯G♮A♭
rall ♩= 72
92
snow
De - spite the snow
n.vib.
C♮


95
a.fl.
sop.
vla.
vc.
ha.
mp
the fa lling
p
fa lling snow
pp
3
B♮C♯D♯E F♮G♭A♮
mp


G piu mosso ♪= 112
98
a.fl.
sop.
vla.
vc.
ha.
norm.
p
p
n.vib.
pp
p

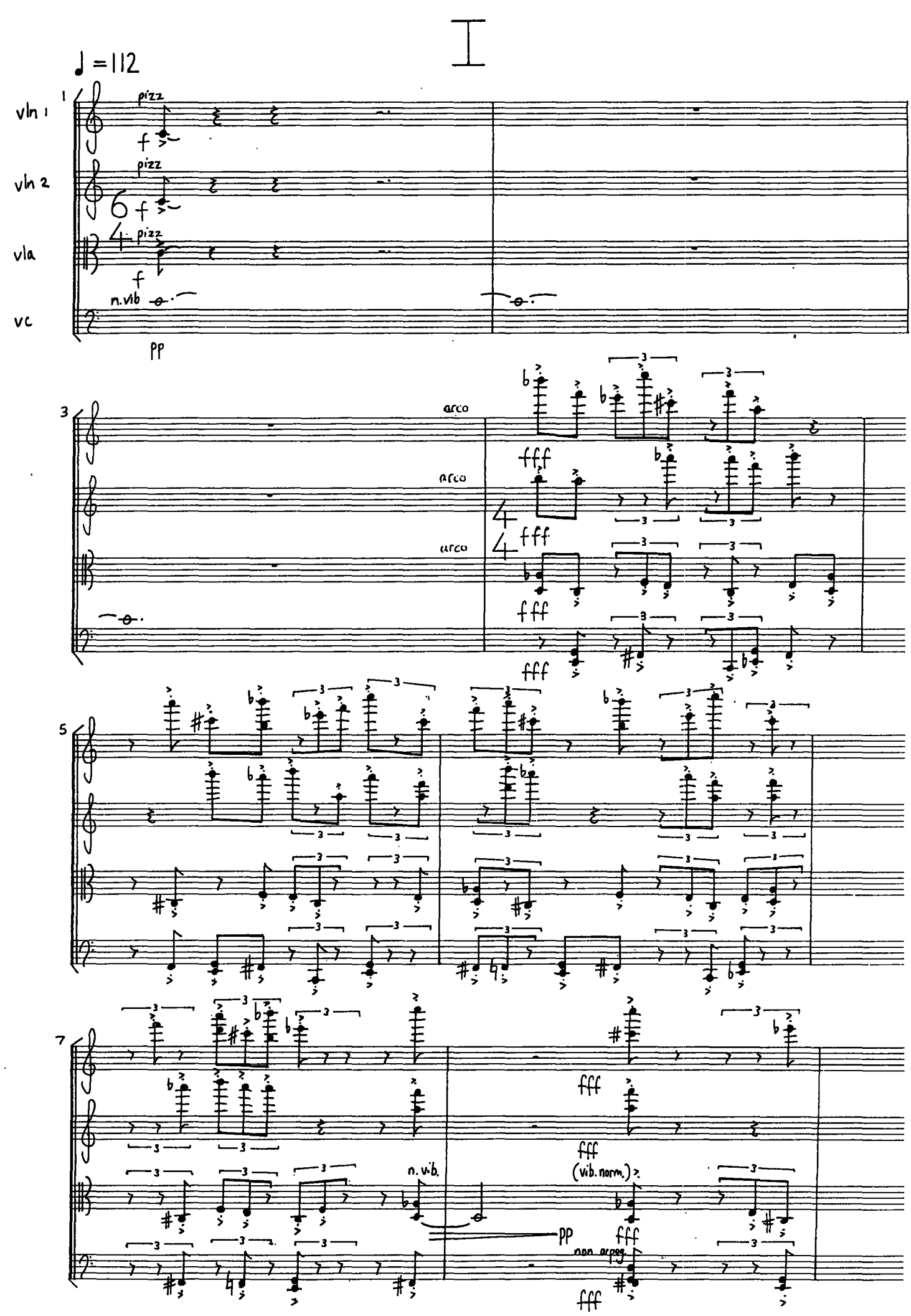

102
a.fl.
sop.
vla.
vc.
ha.
mp
mf
p
ah
n.vib.
pp

rall .....


105
a.fl.
sop.
vla.
vc.
ha.
mf
pp
(ah)
mm
n.vib.
ppp
C♯DbF♯
mp

String Quartet No.2

Michael Young



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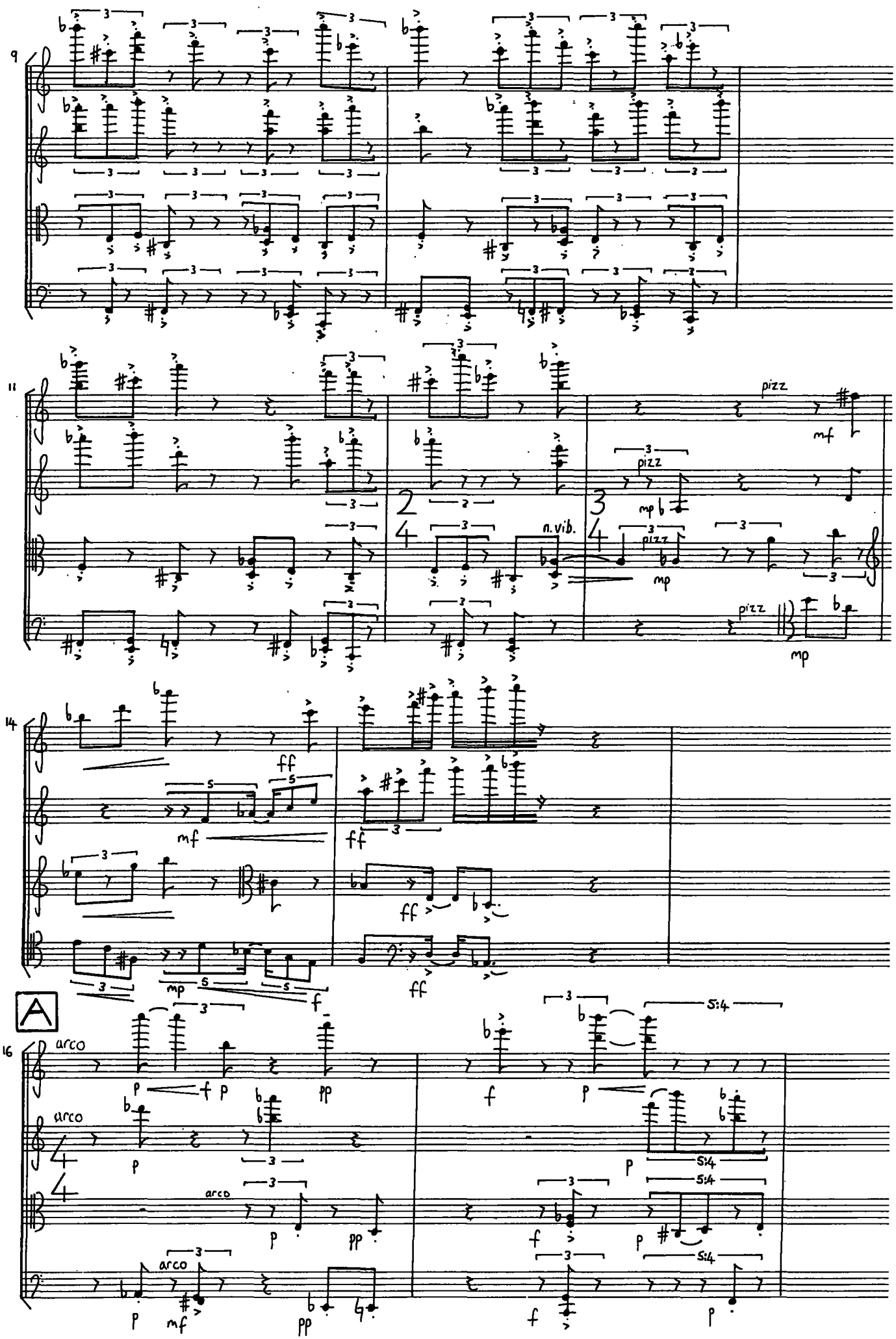
Order Ref. No. 12720



DHP PANOPUS SCORE-SYSTEM

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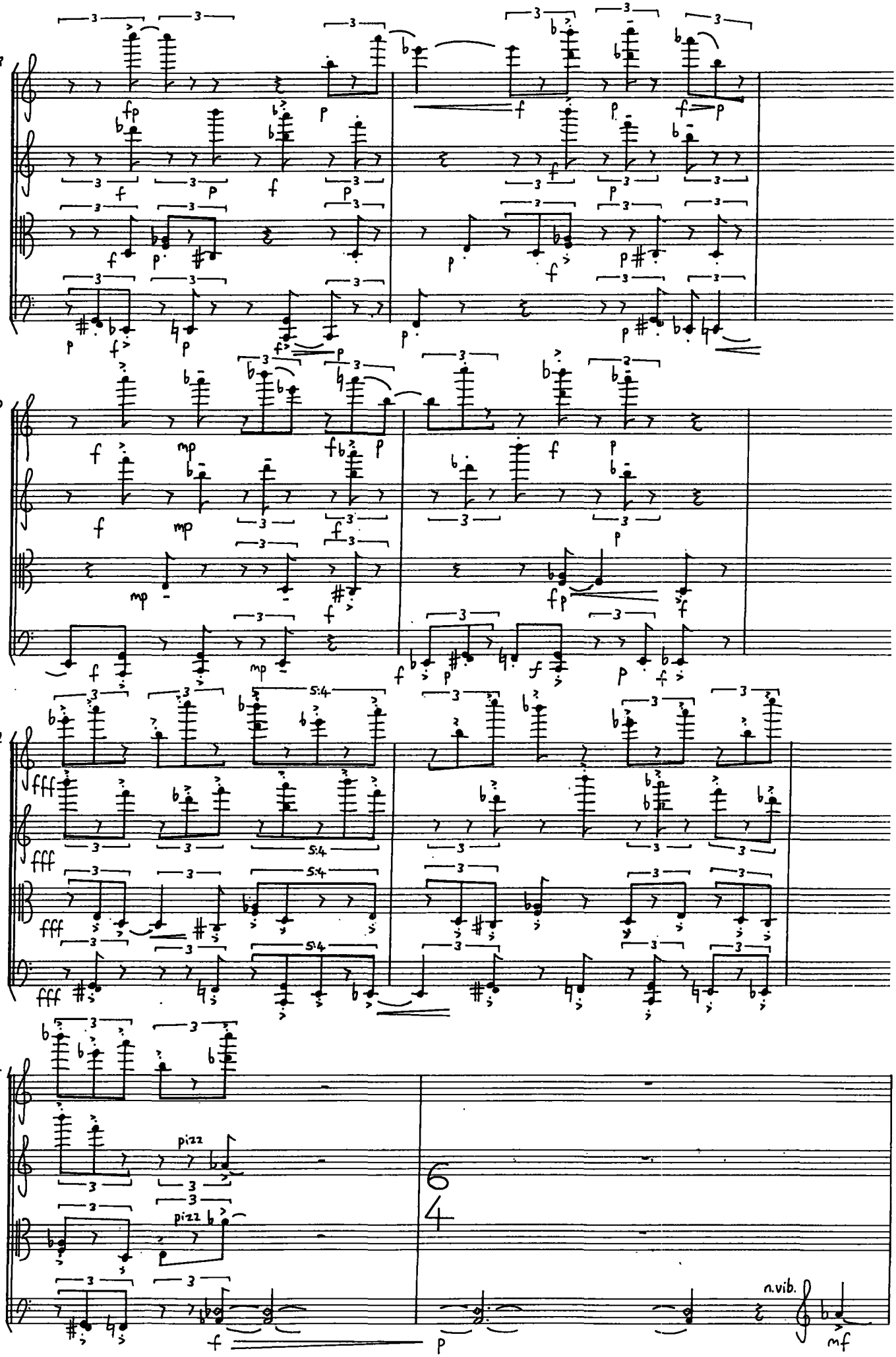

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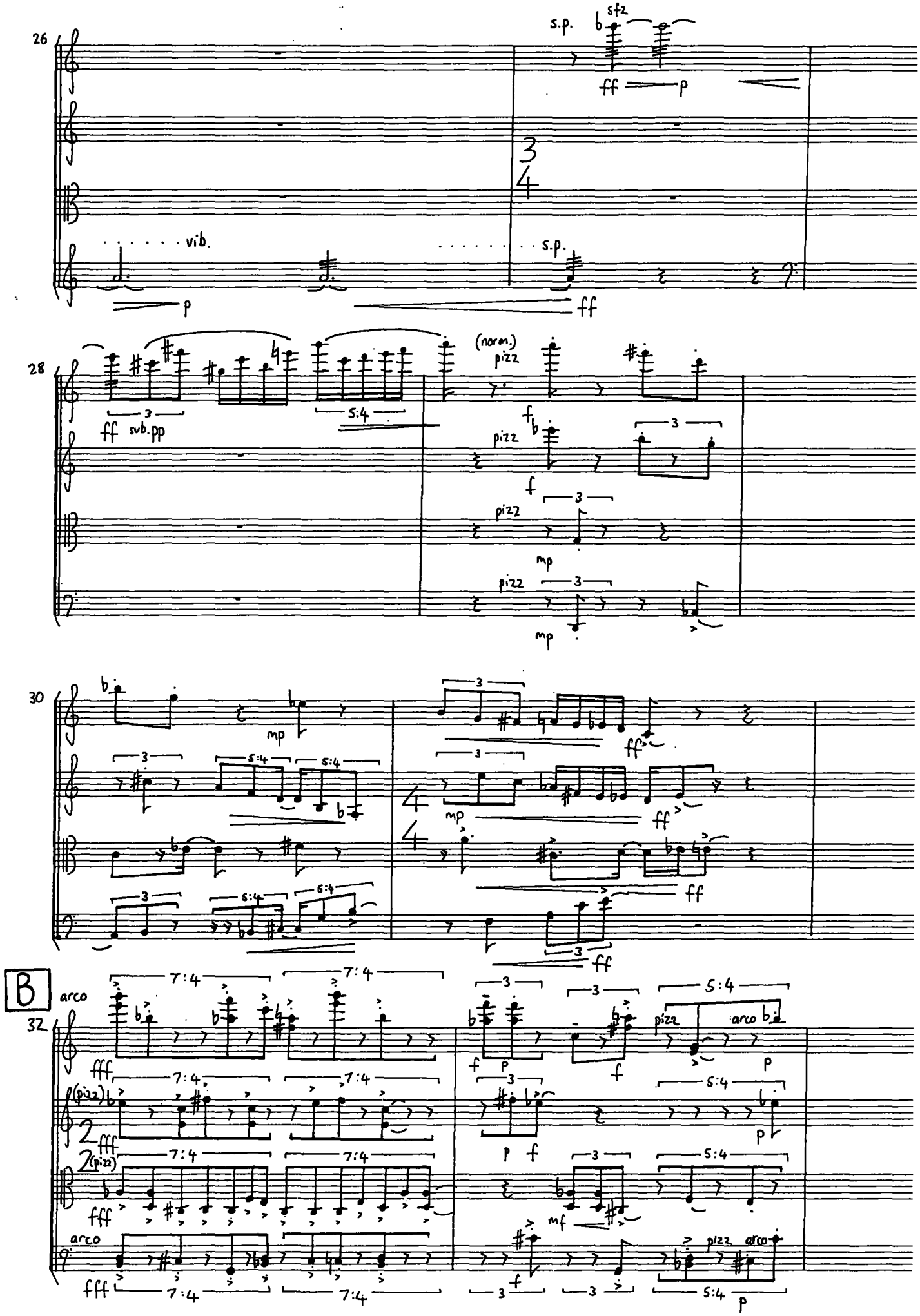

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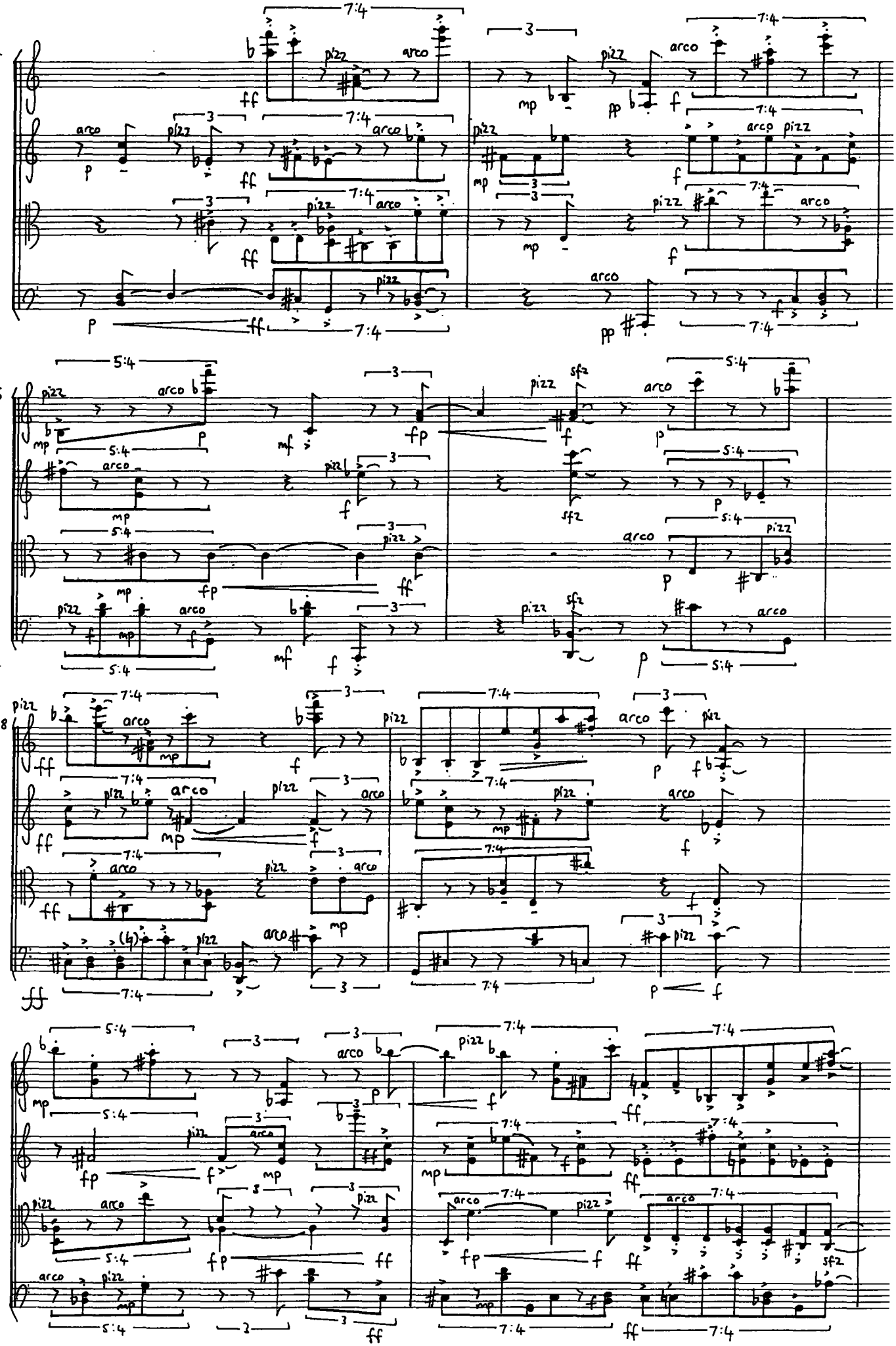

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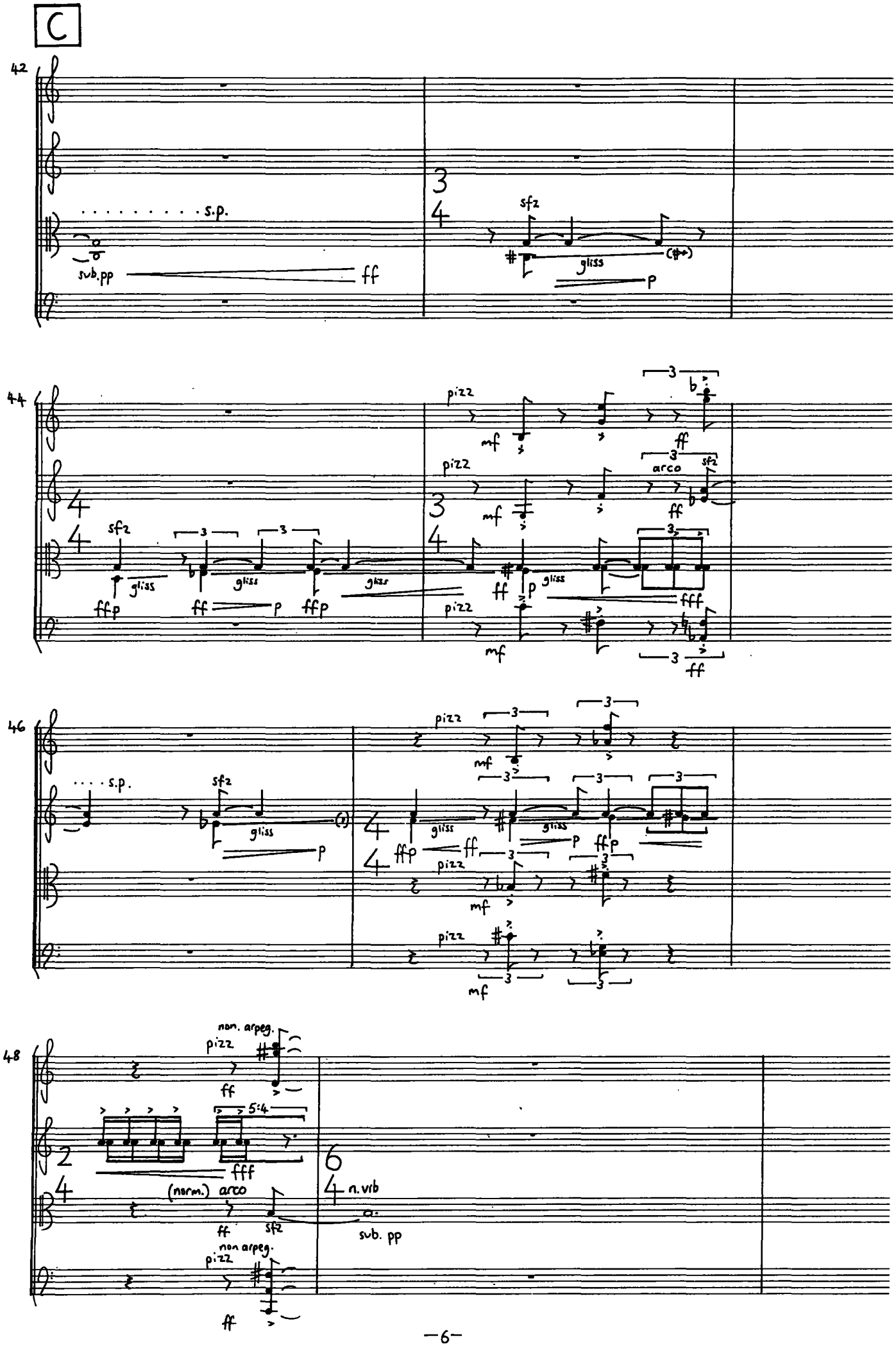

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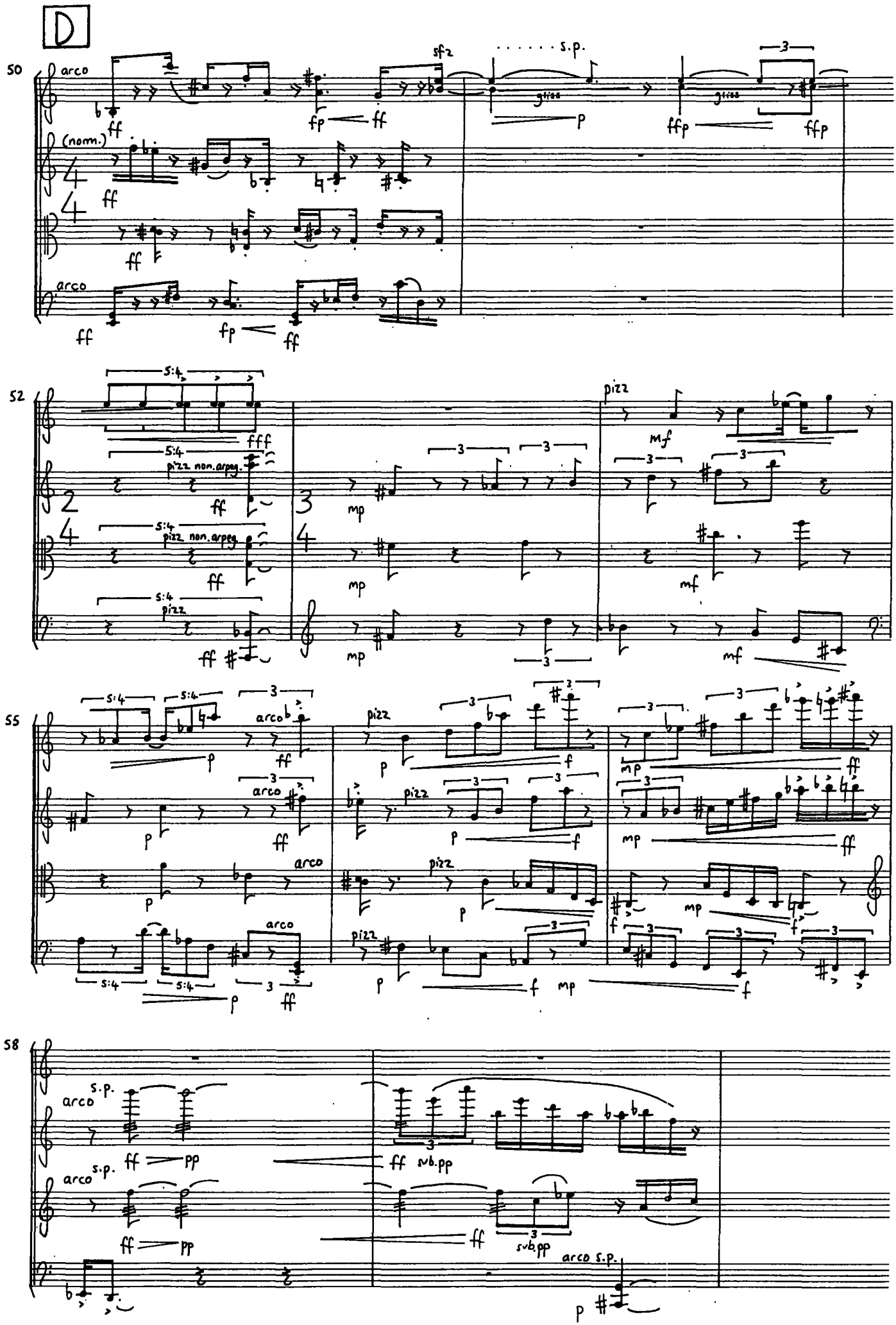

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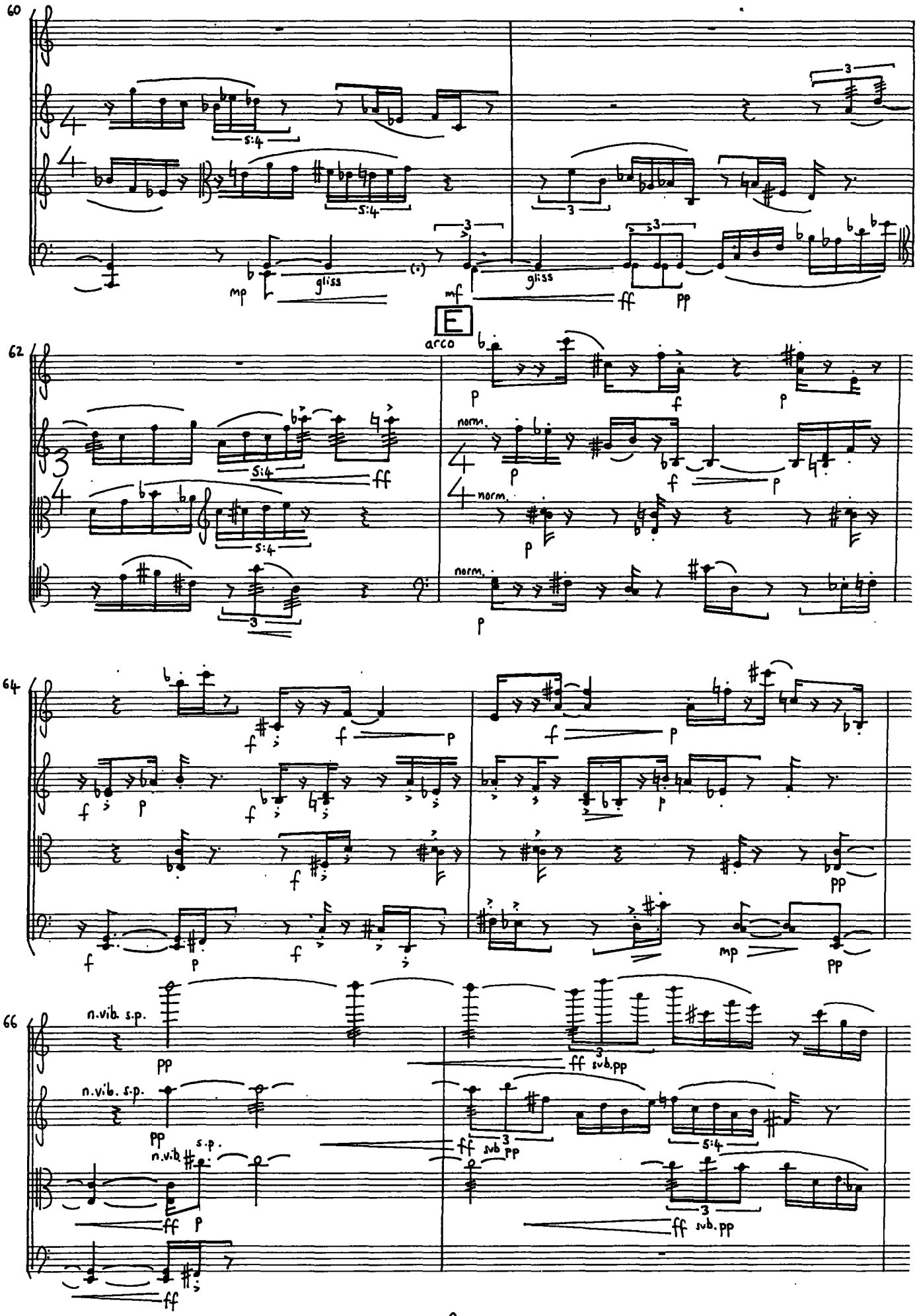

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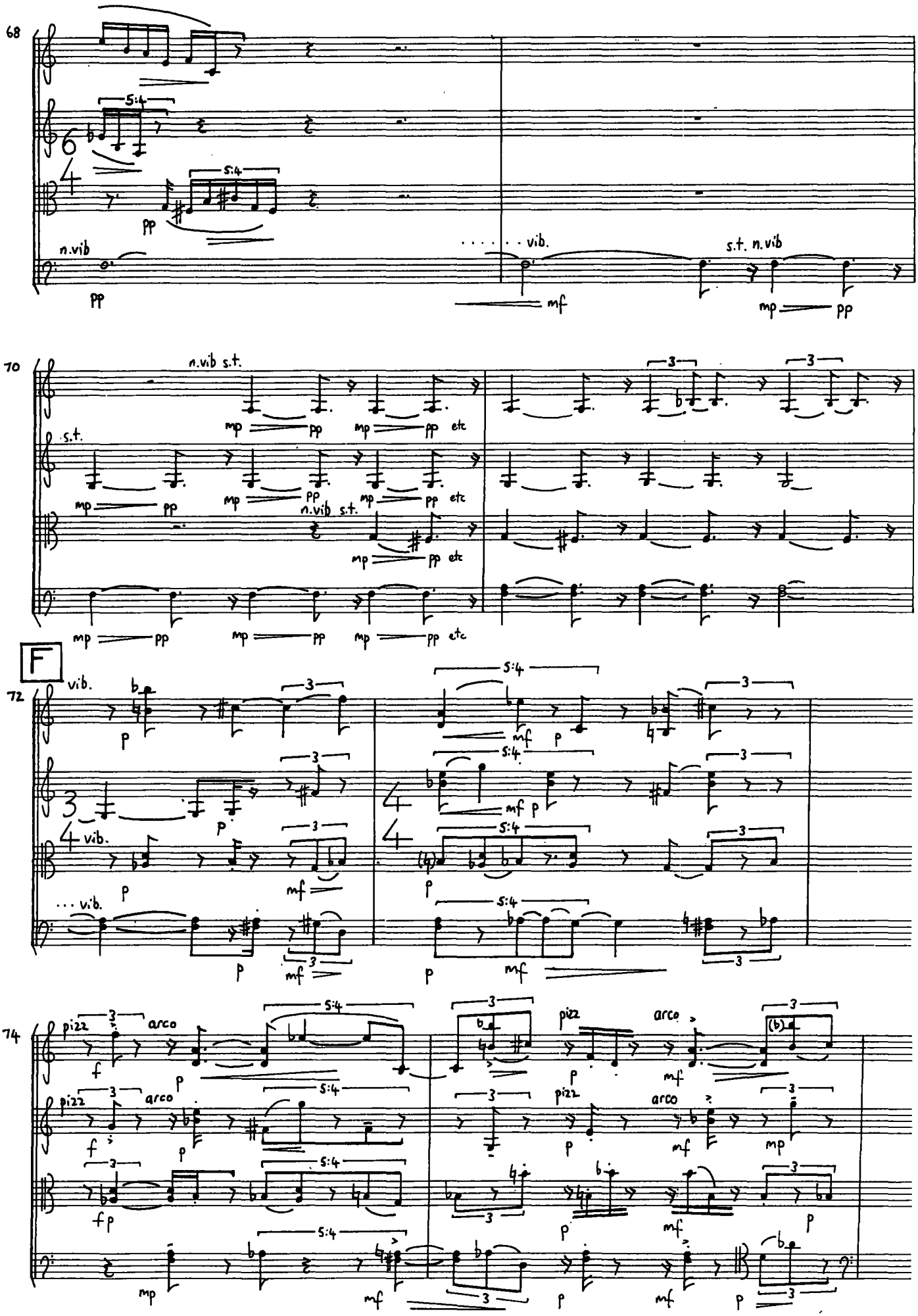

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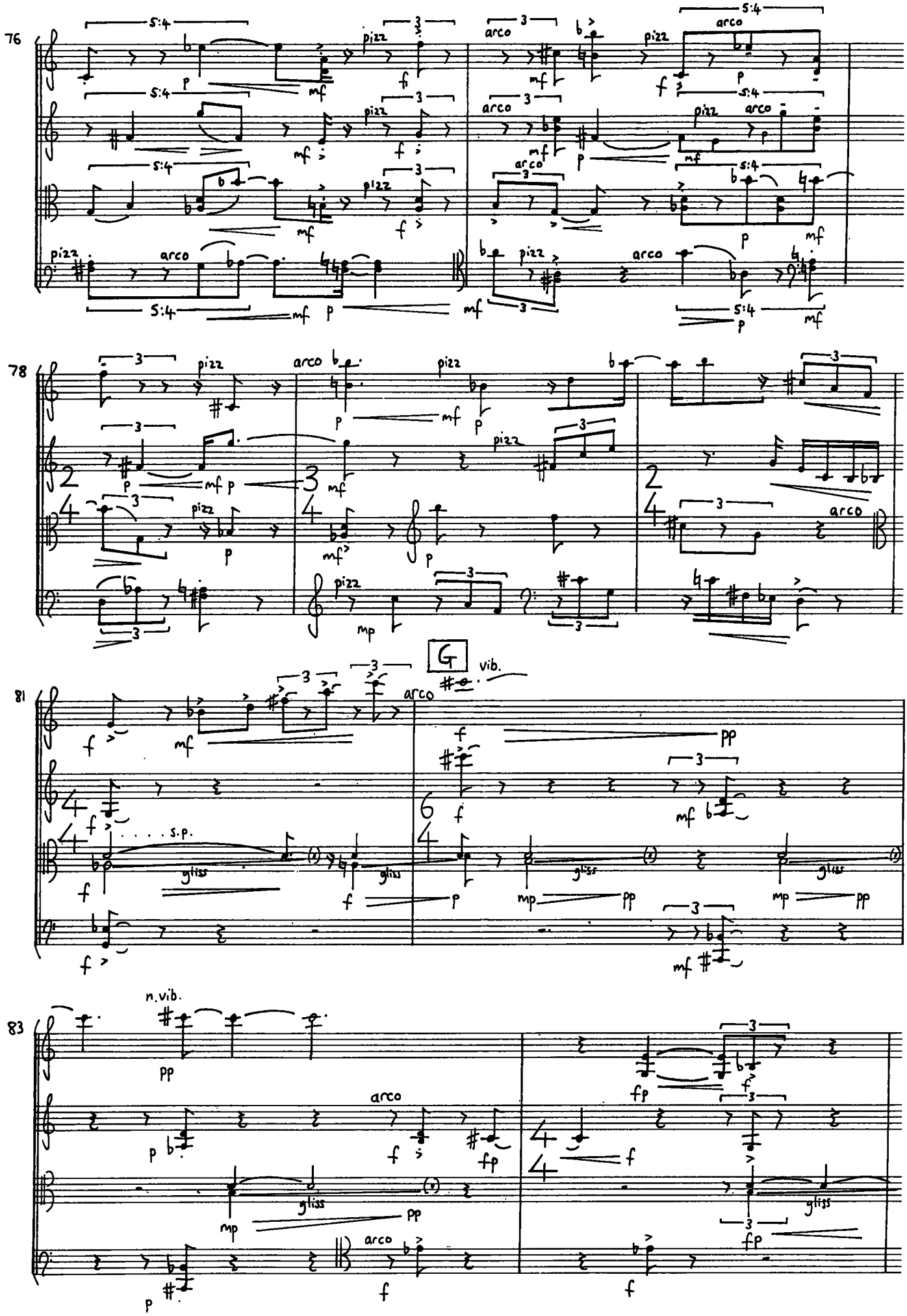

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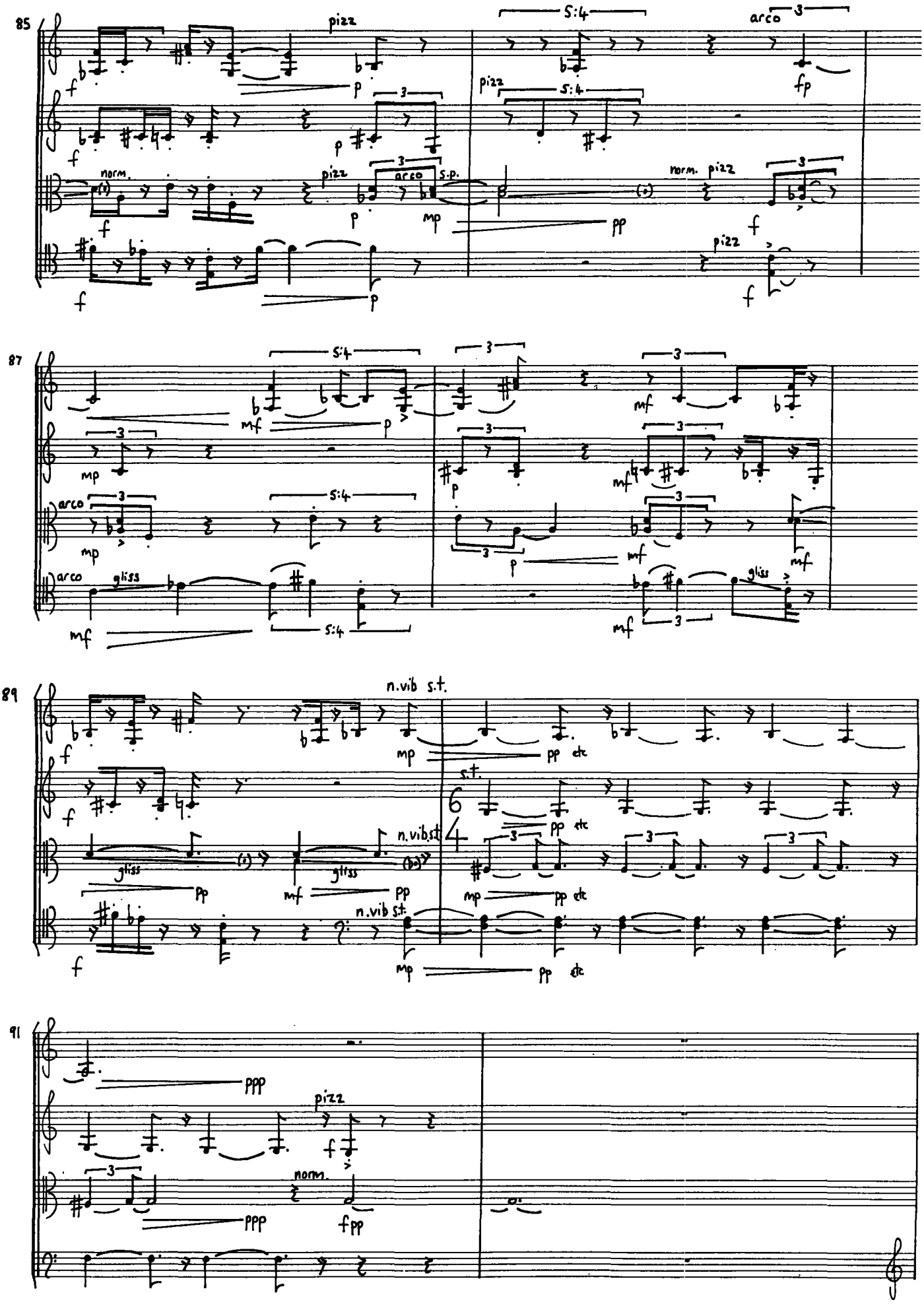

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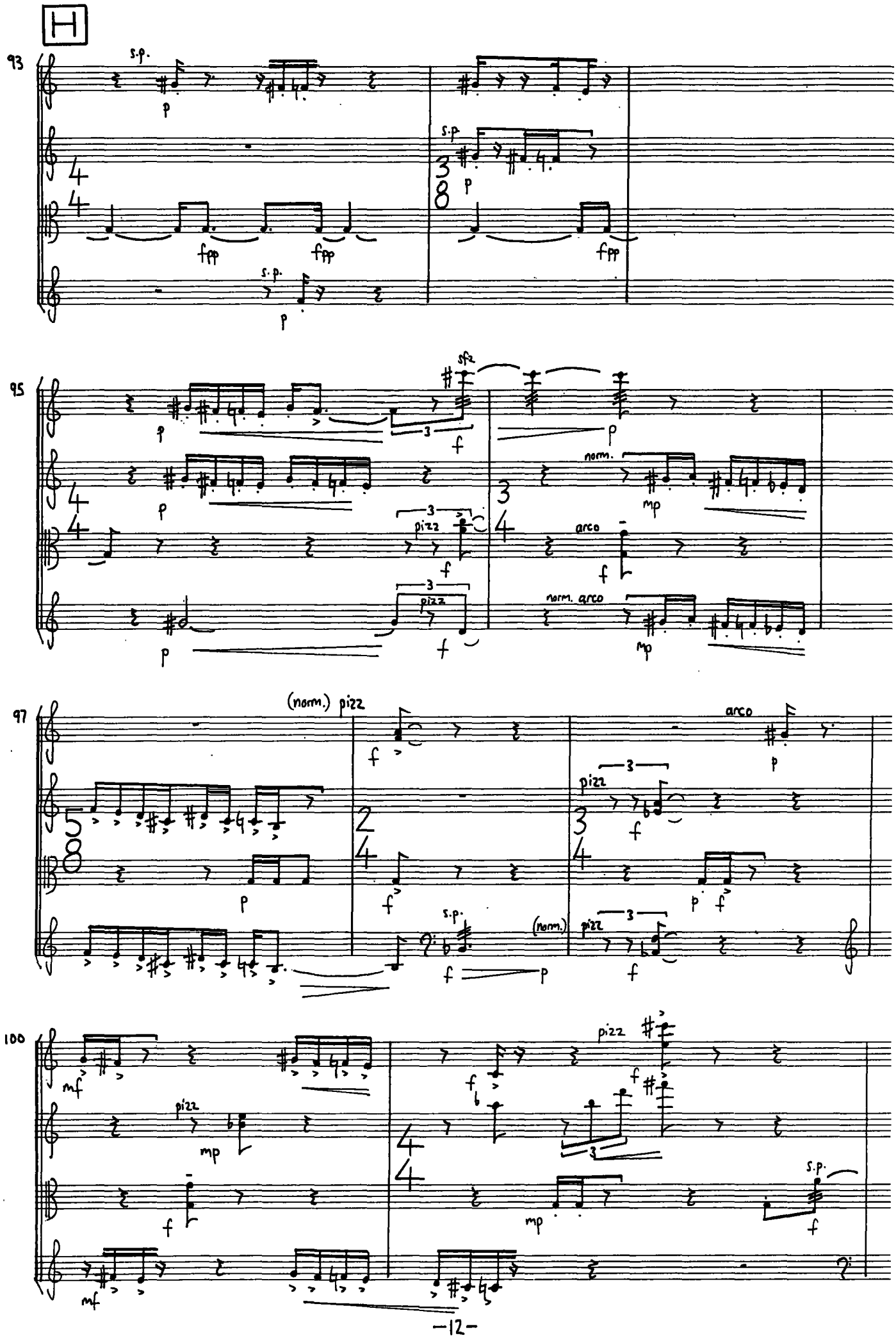

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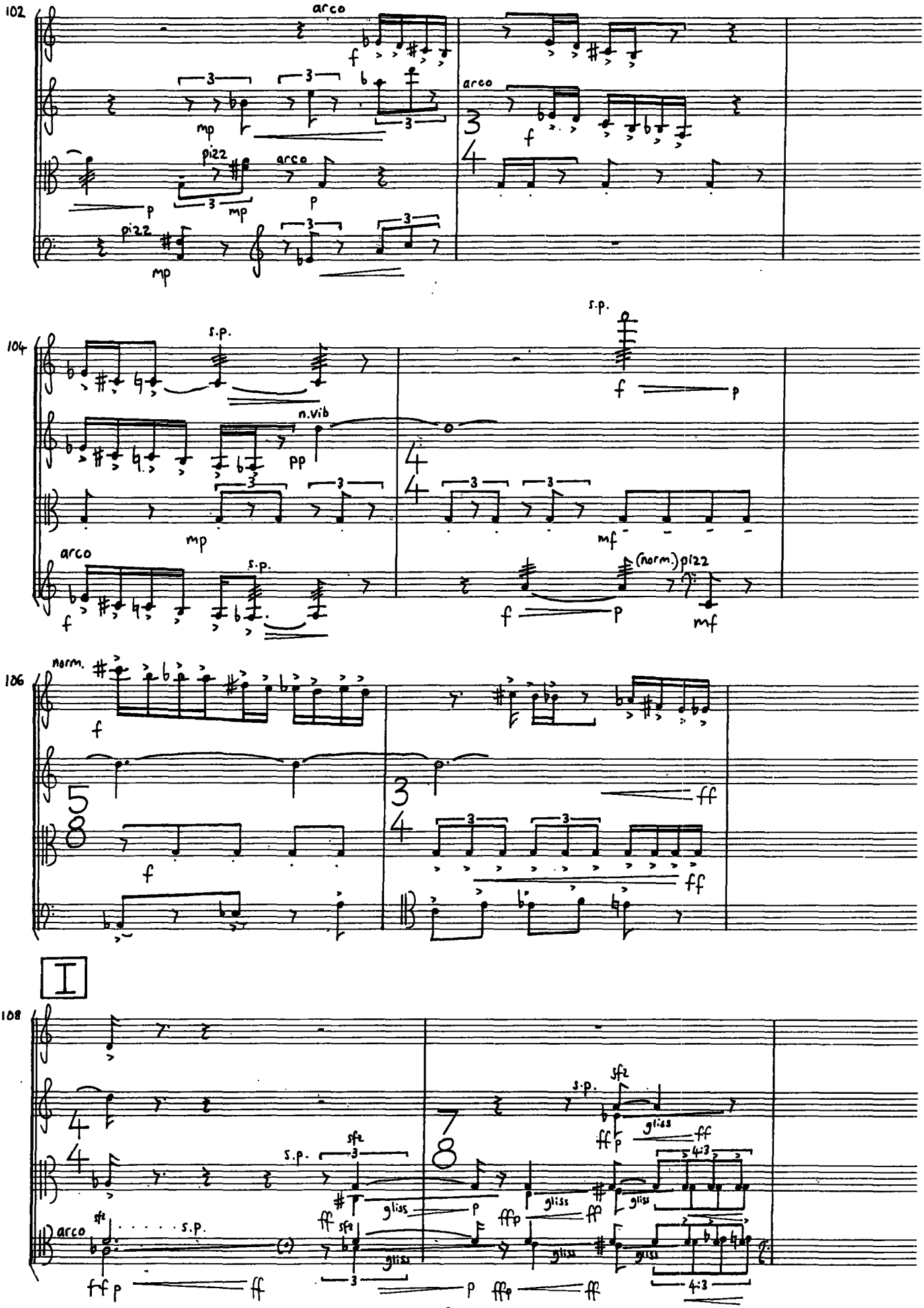

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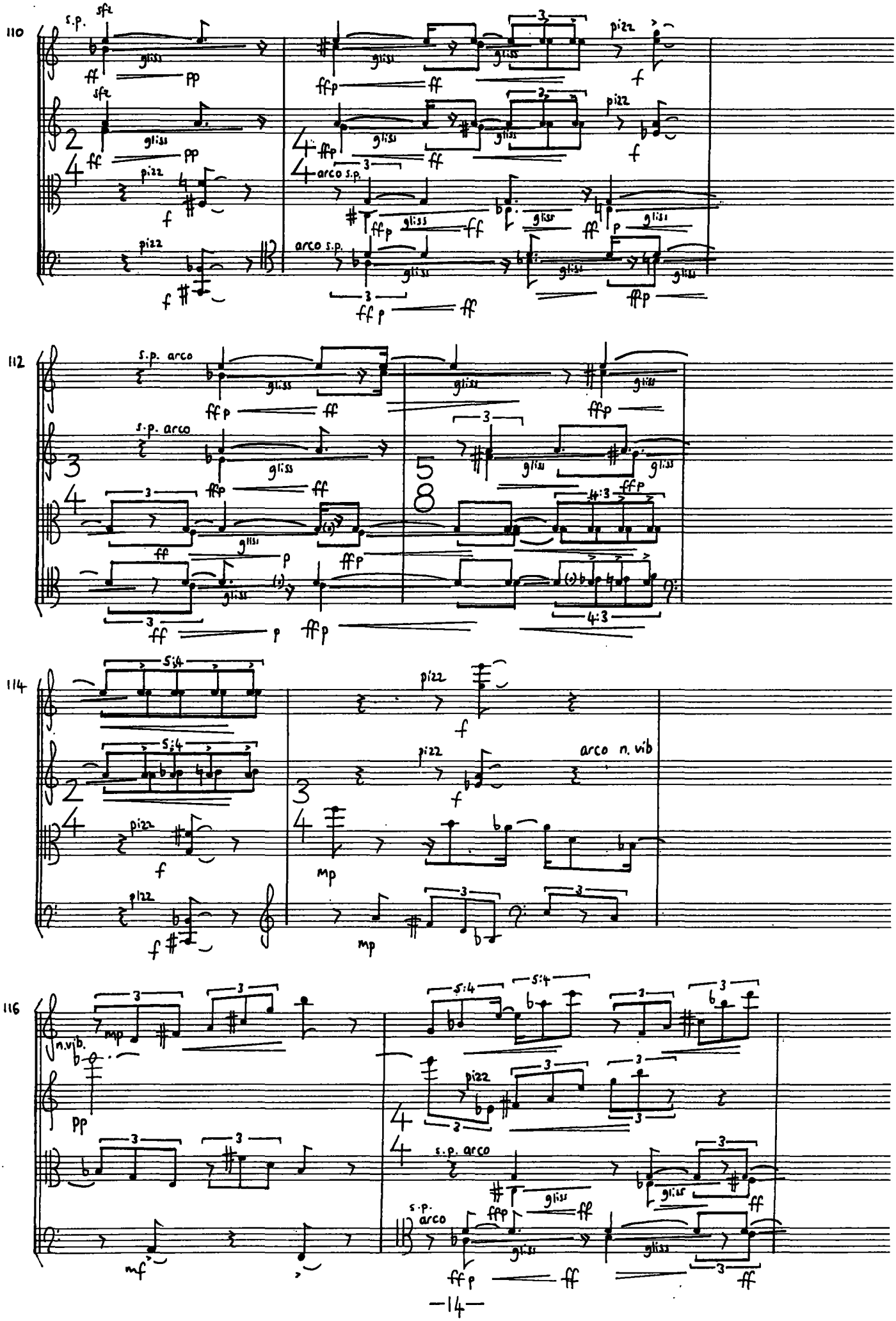

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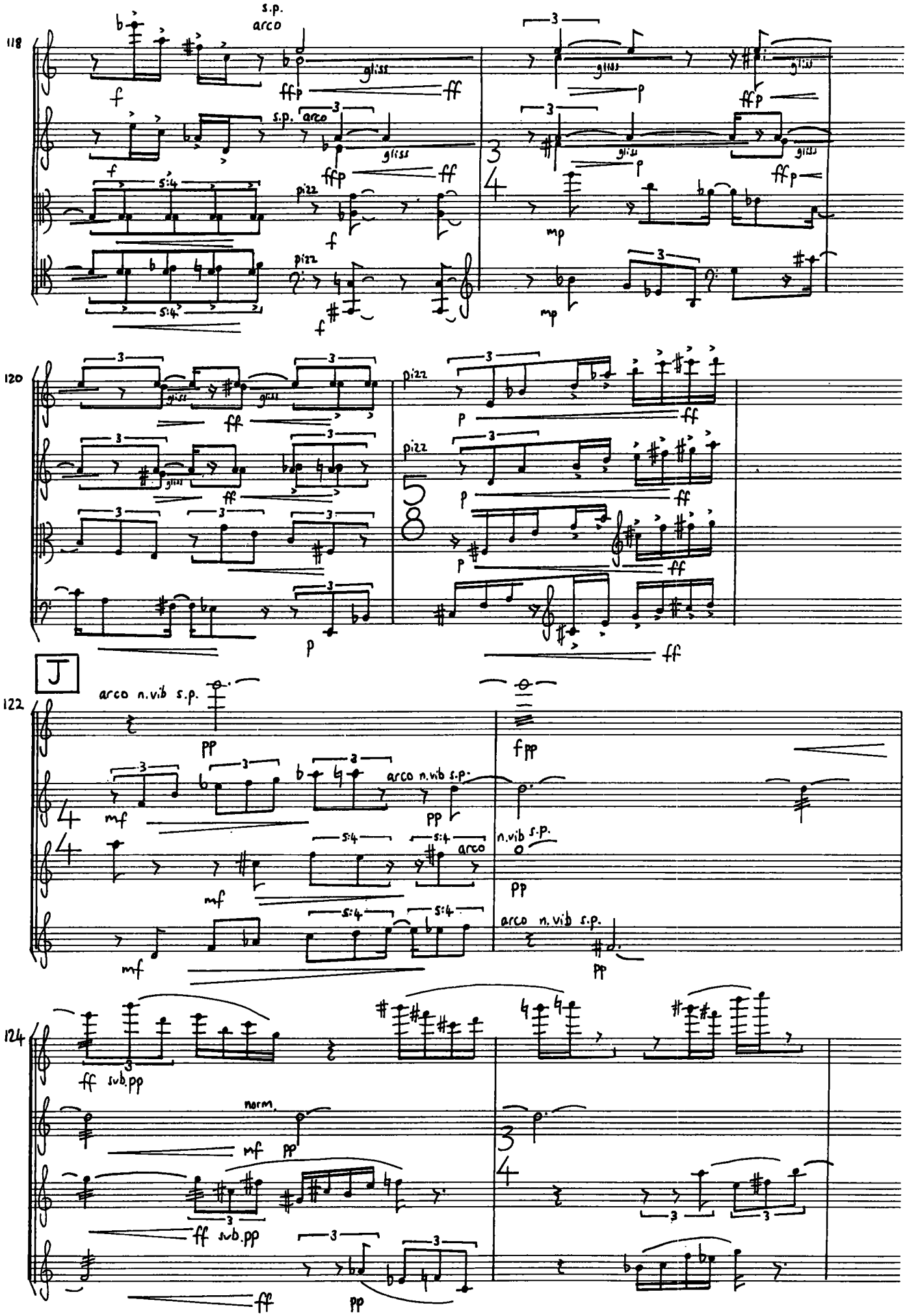

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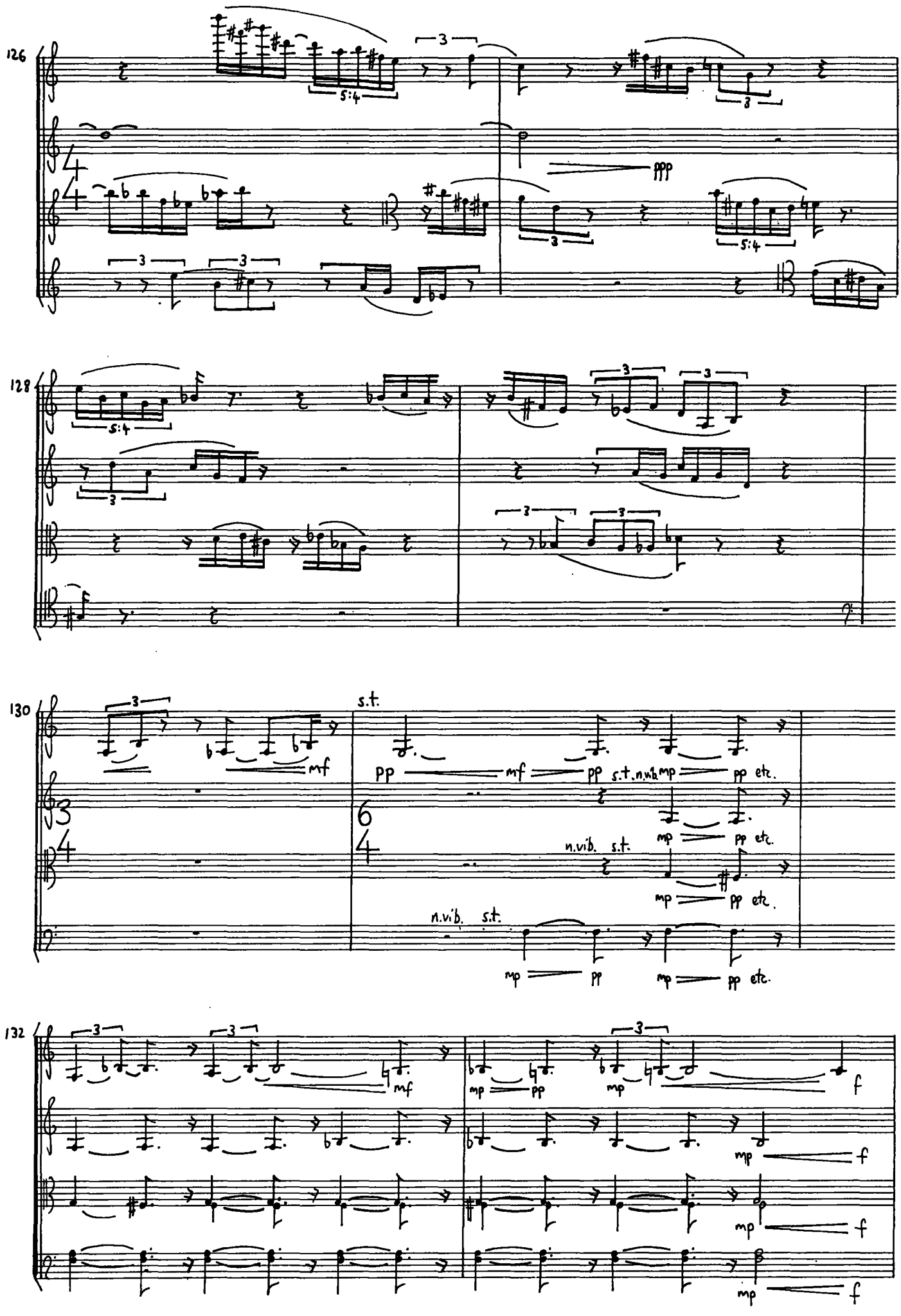

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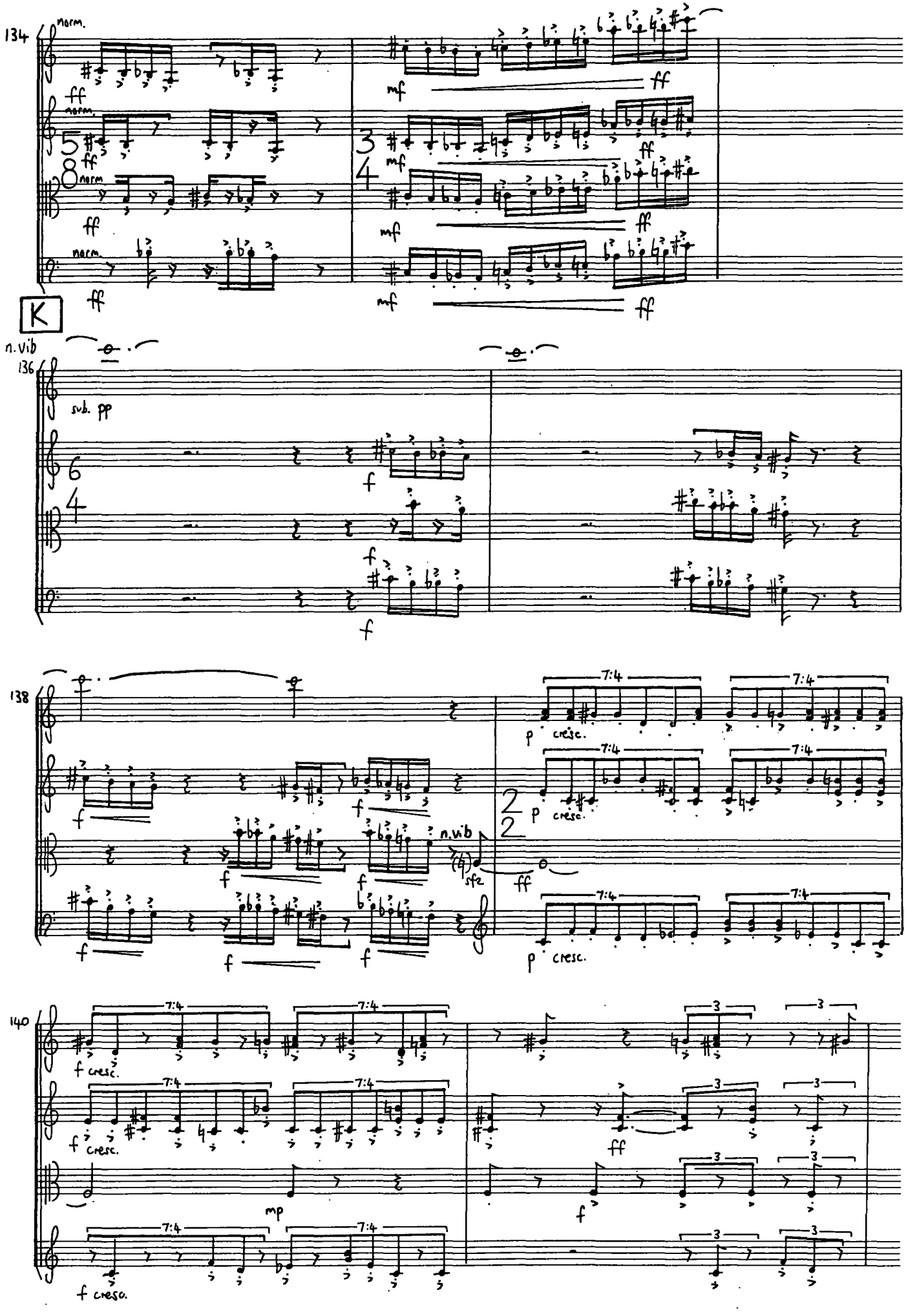

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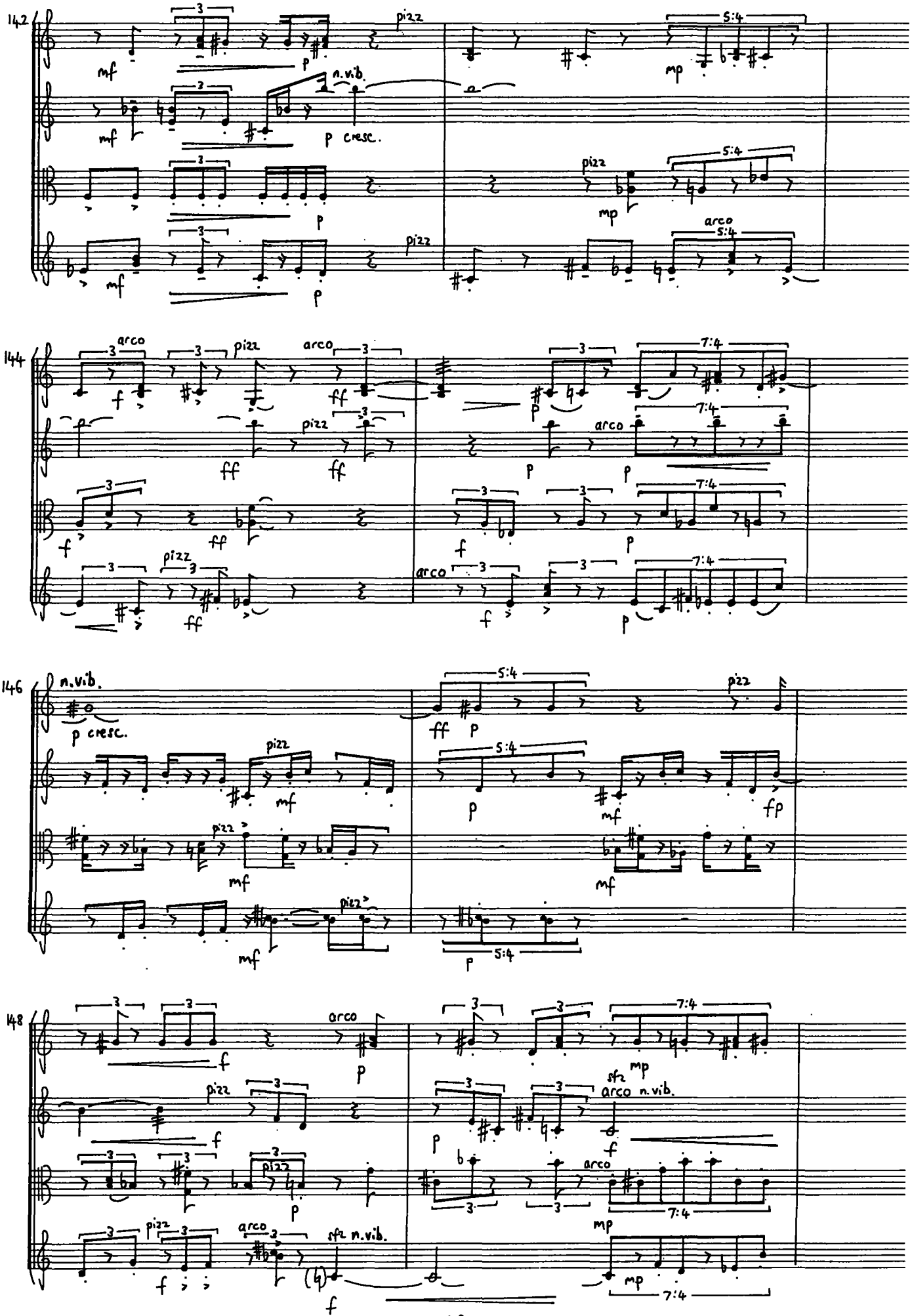

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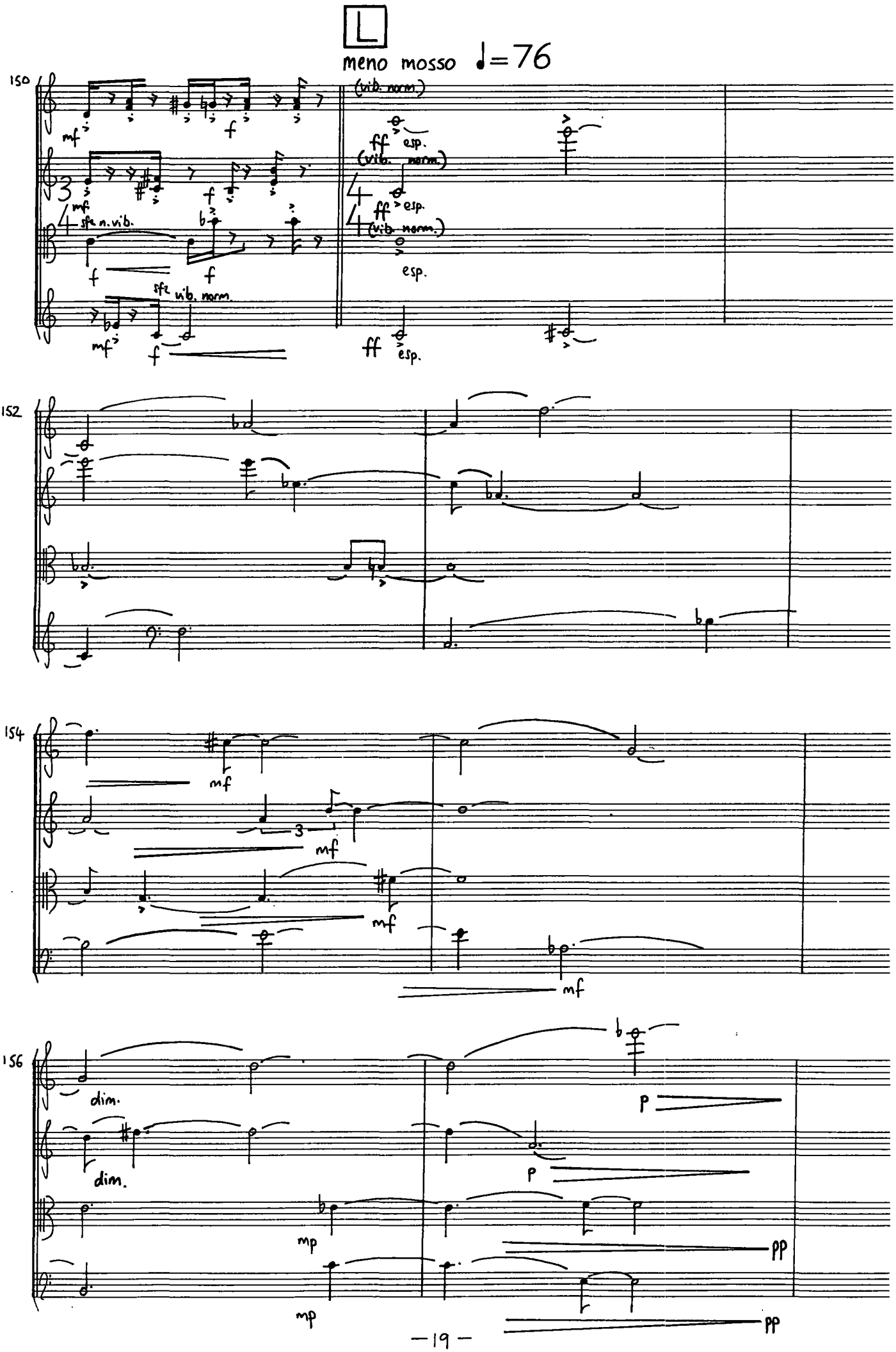

D4-4 PANOPUS SCORE SYSTEM ©
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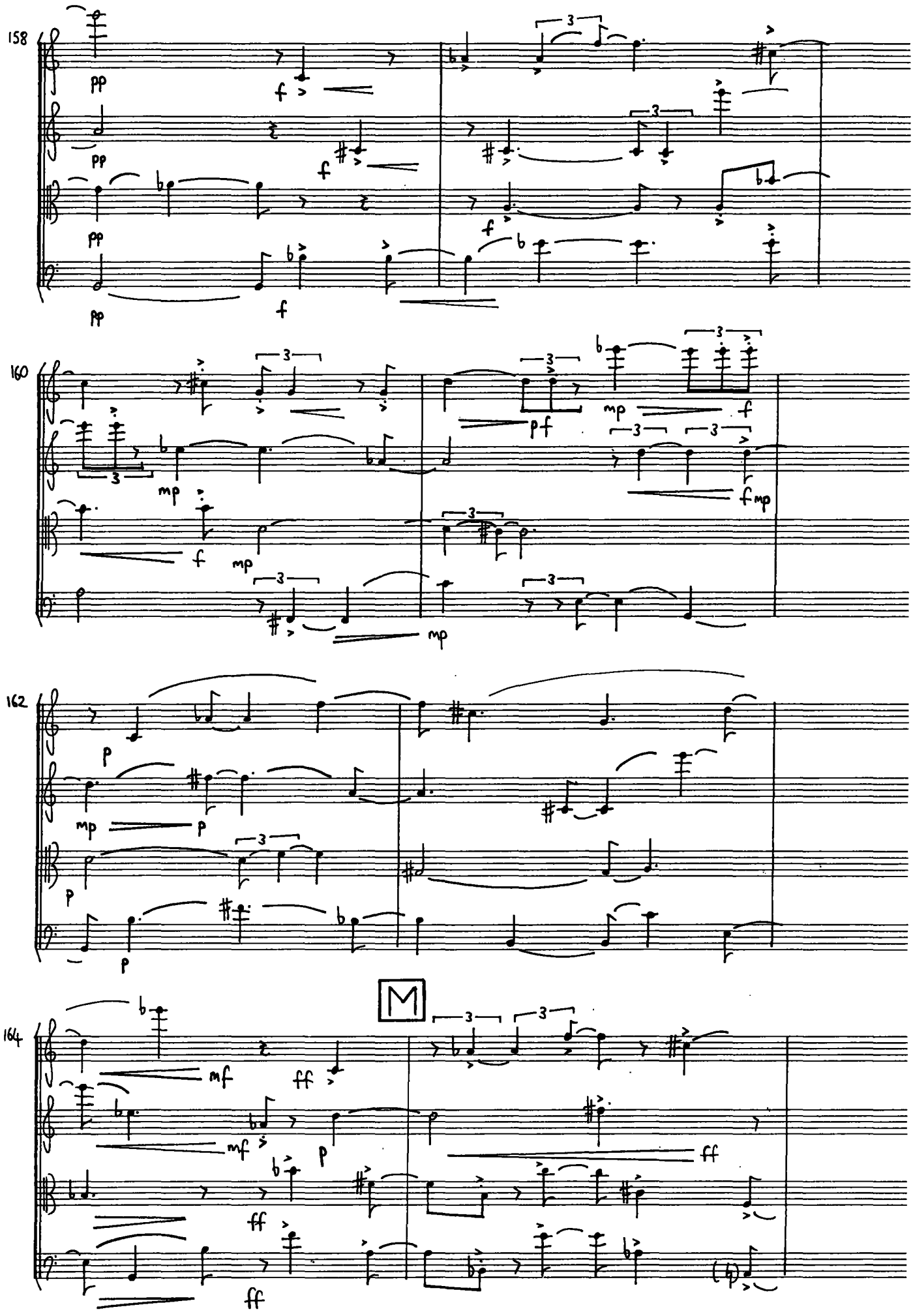

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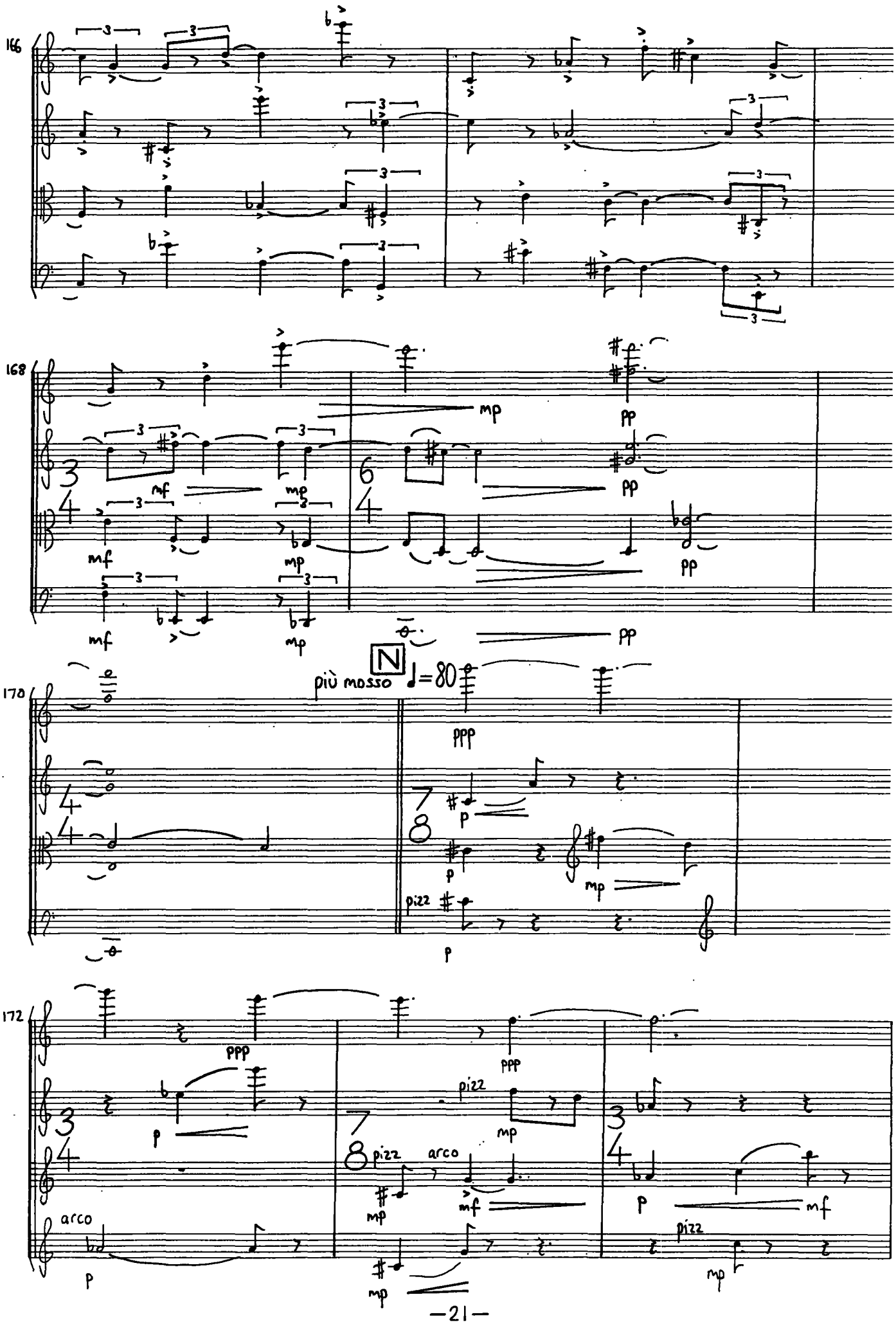

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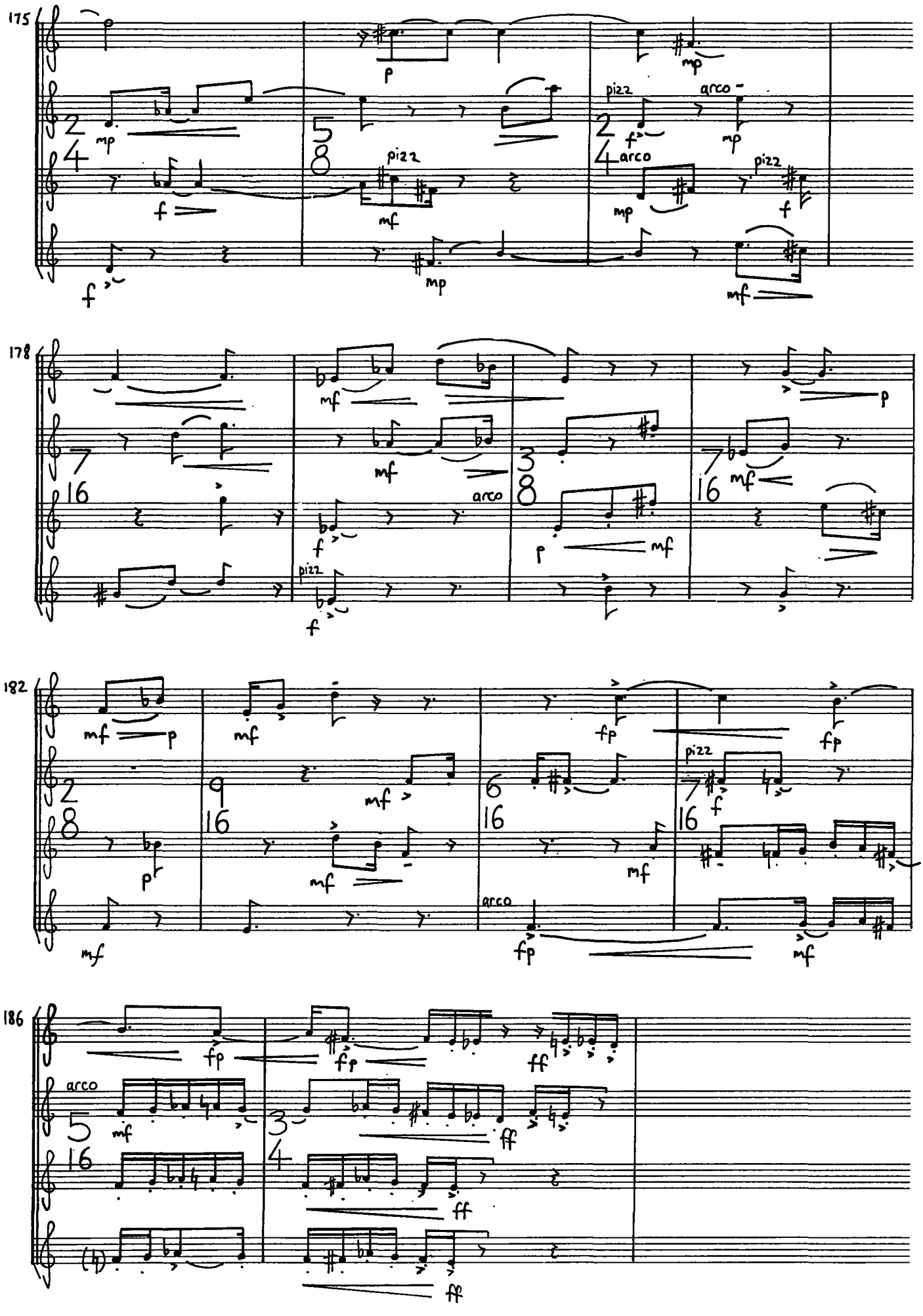

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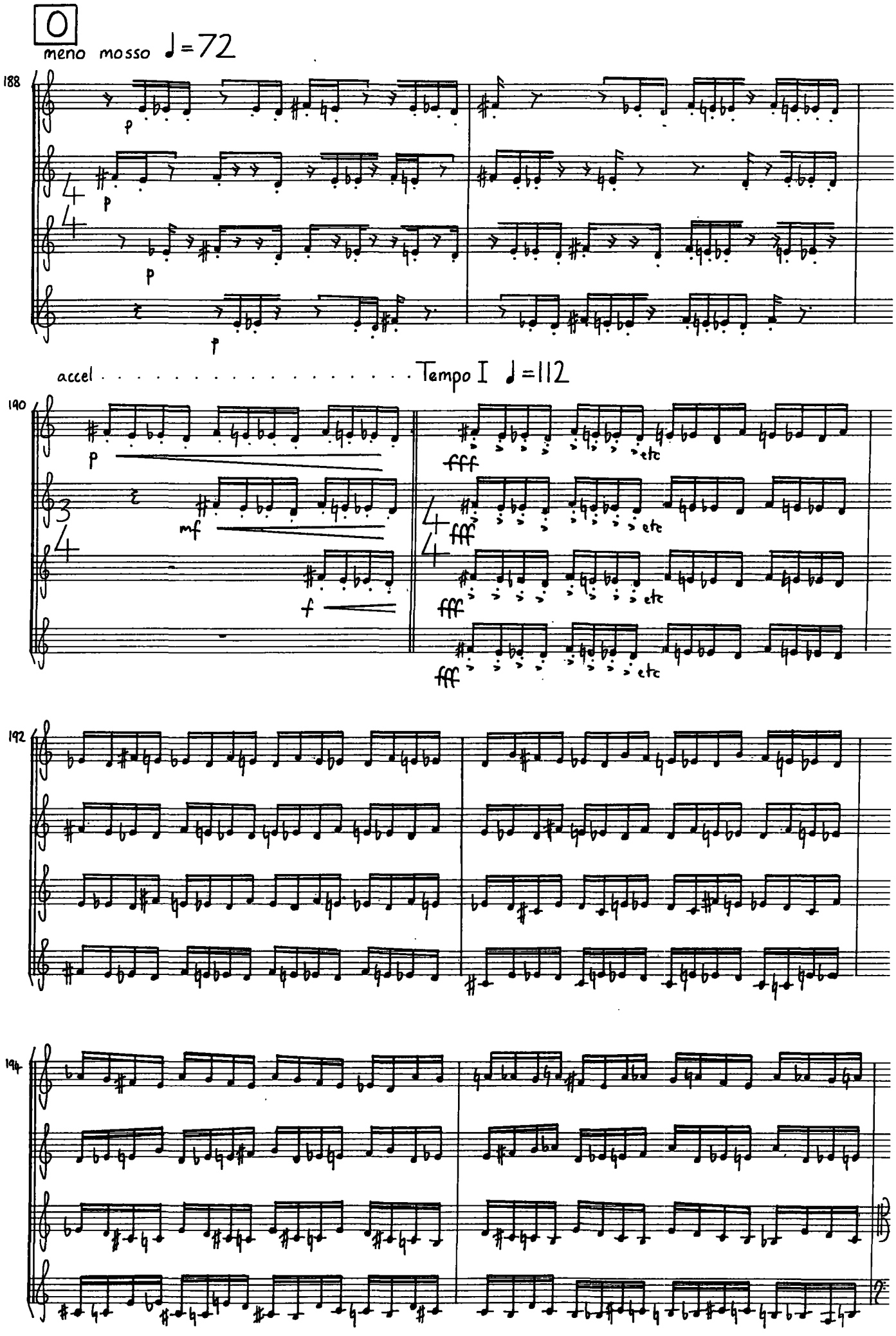

D4-4 PANOPUS SCORE-SYSTEM®

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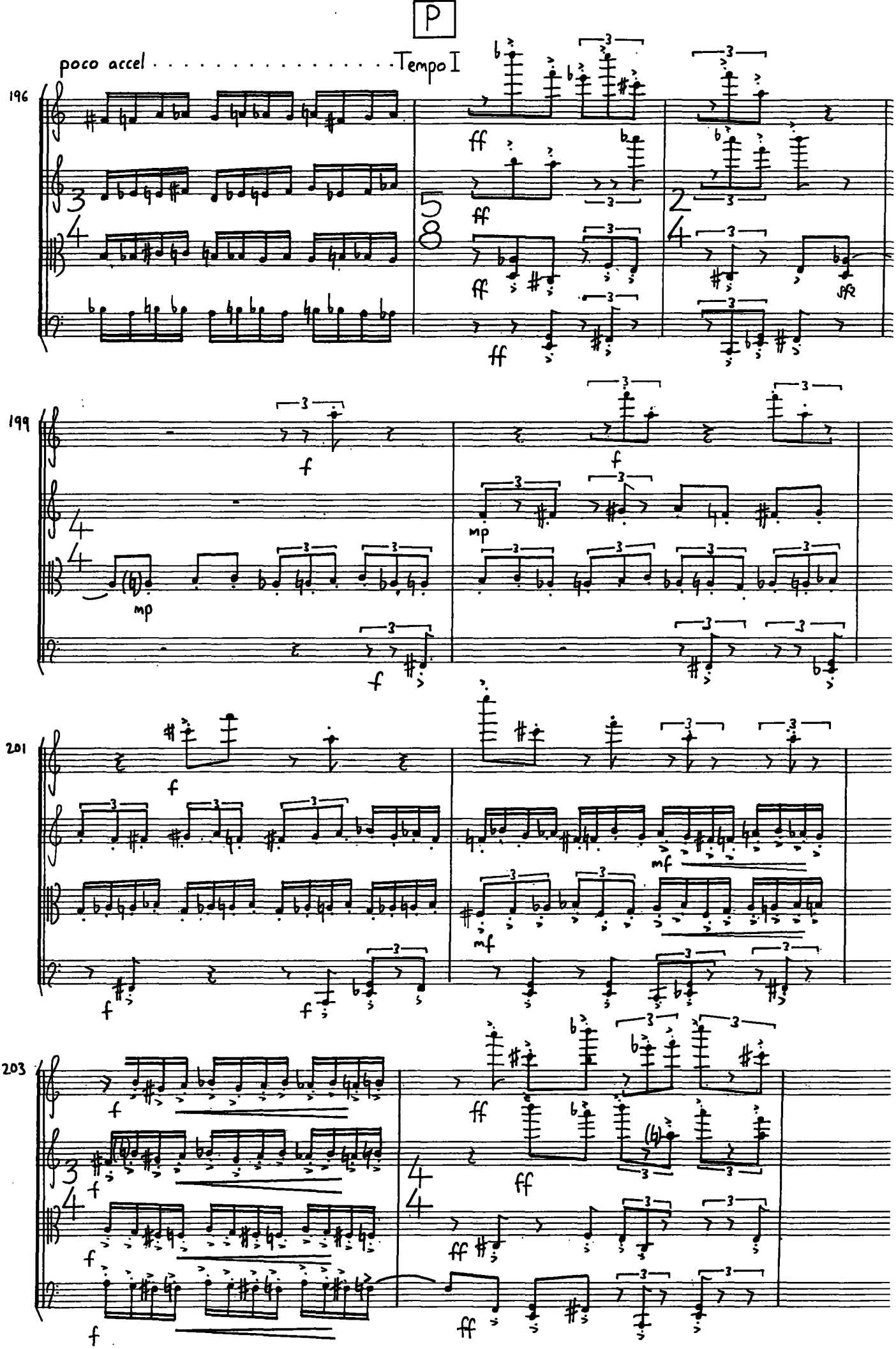

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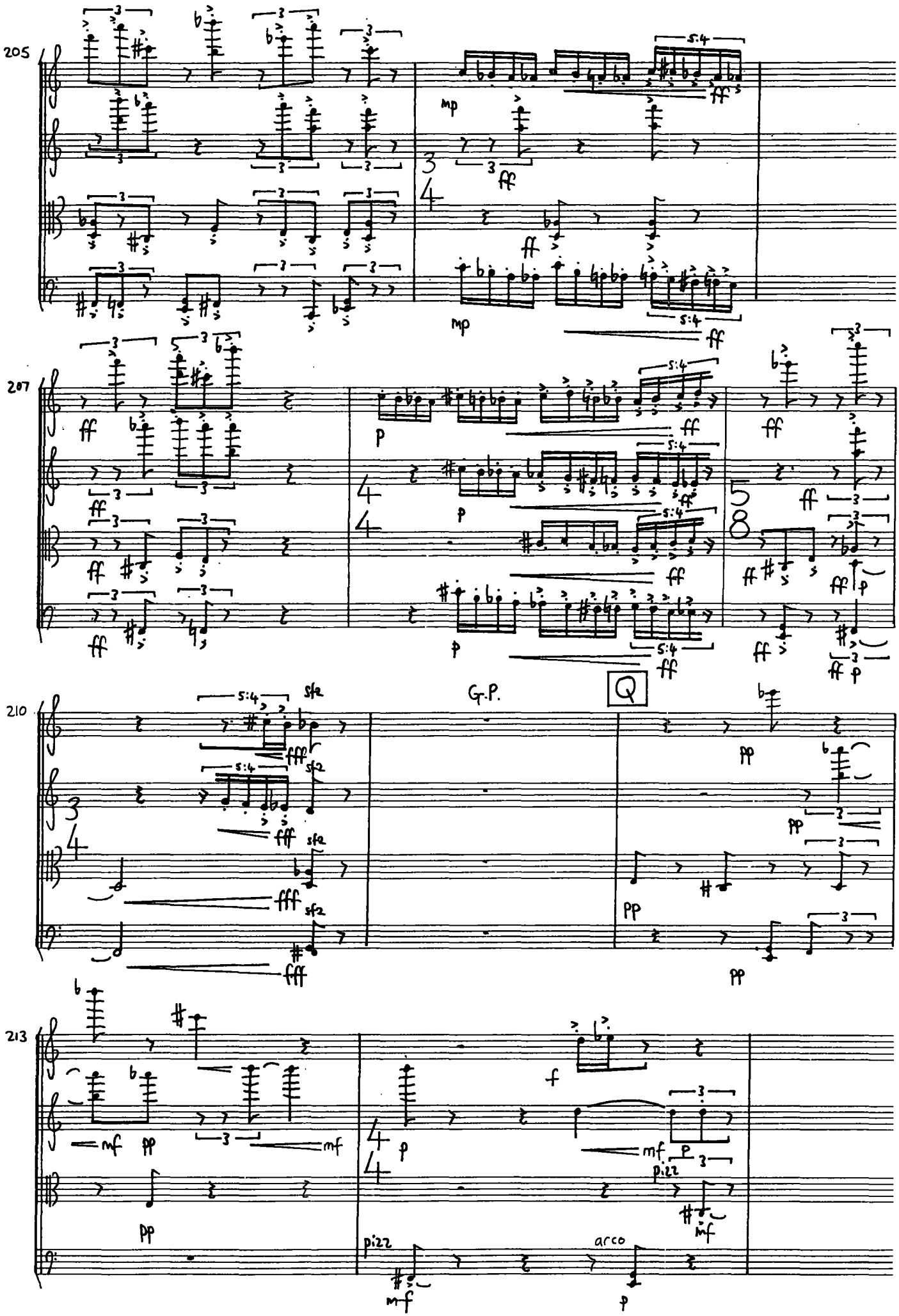

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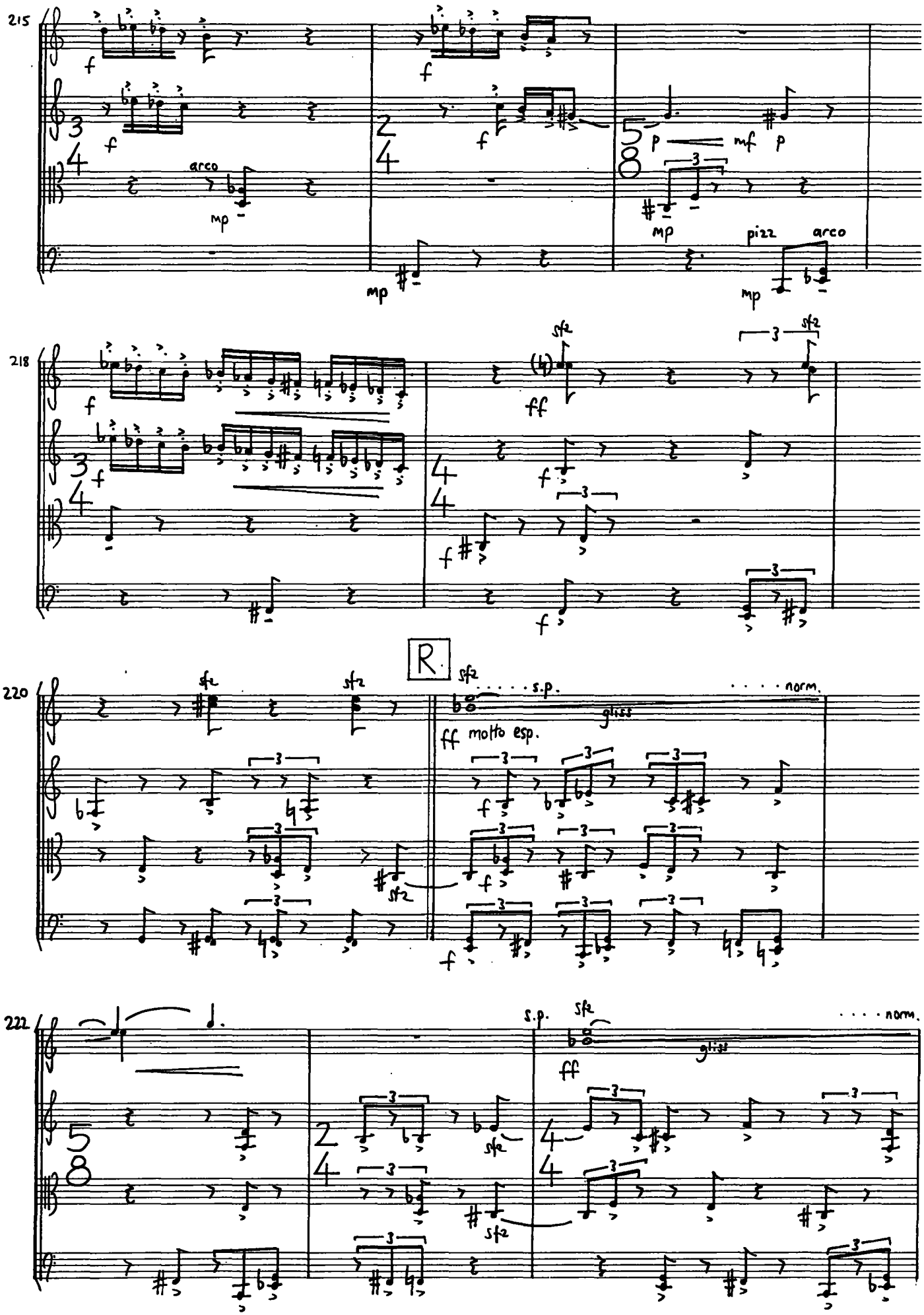

PANOPLIS SCORE-SYSTEM©

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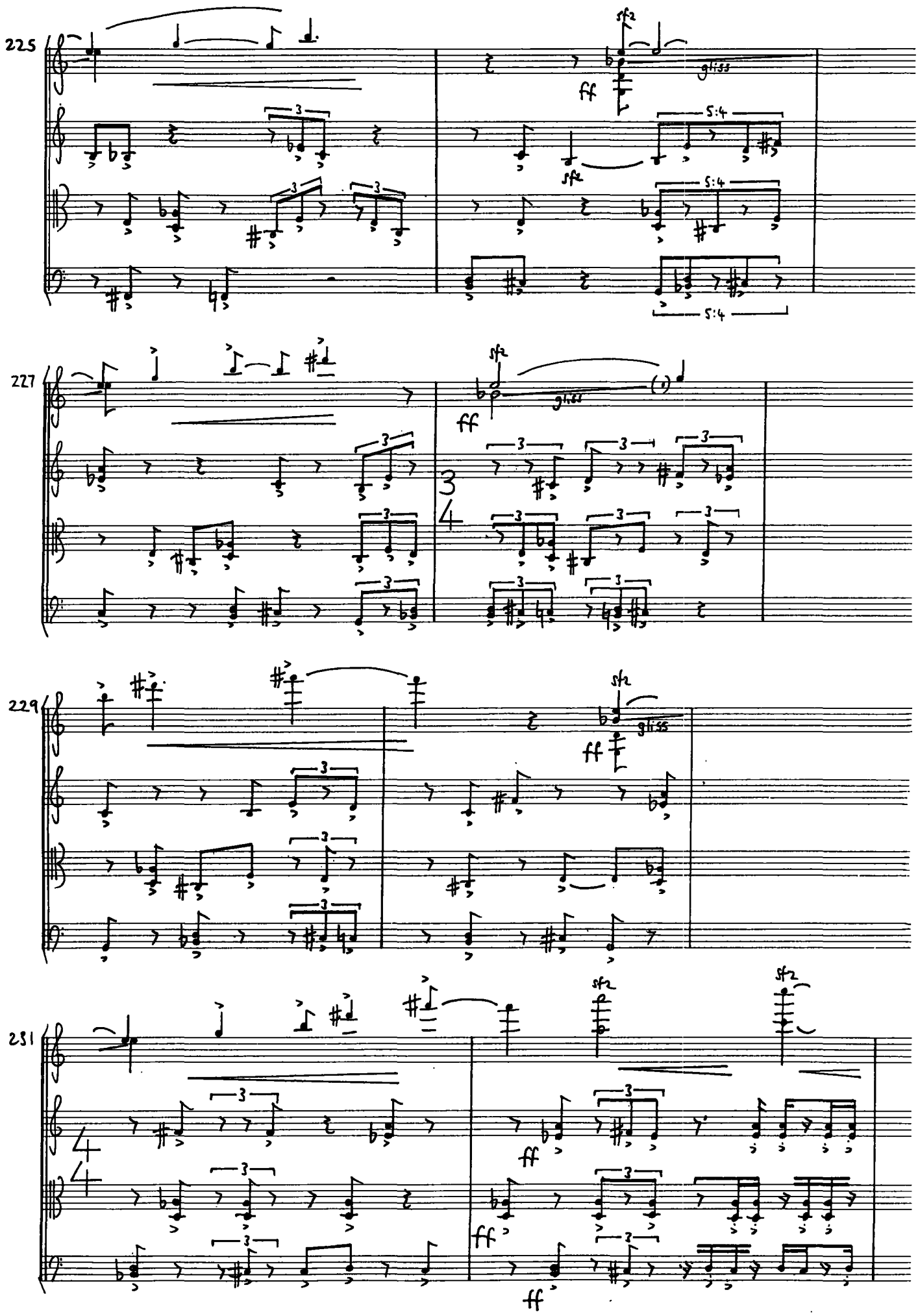

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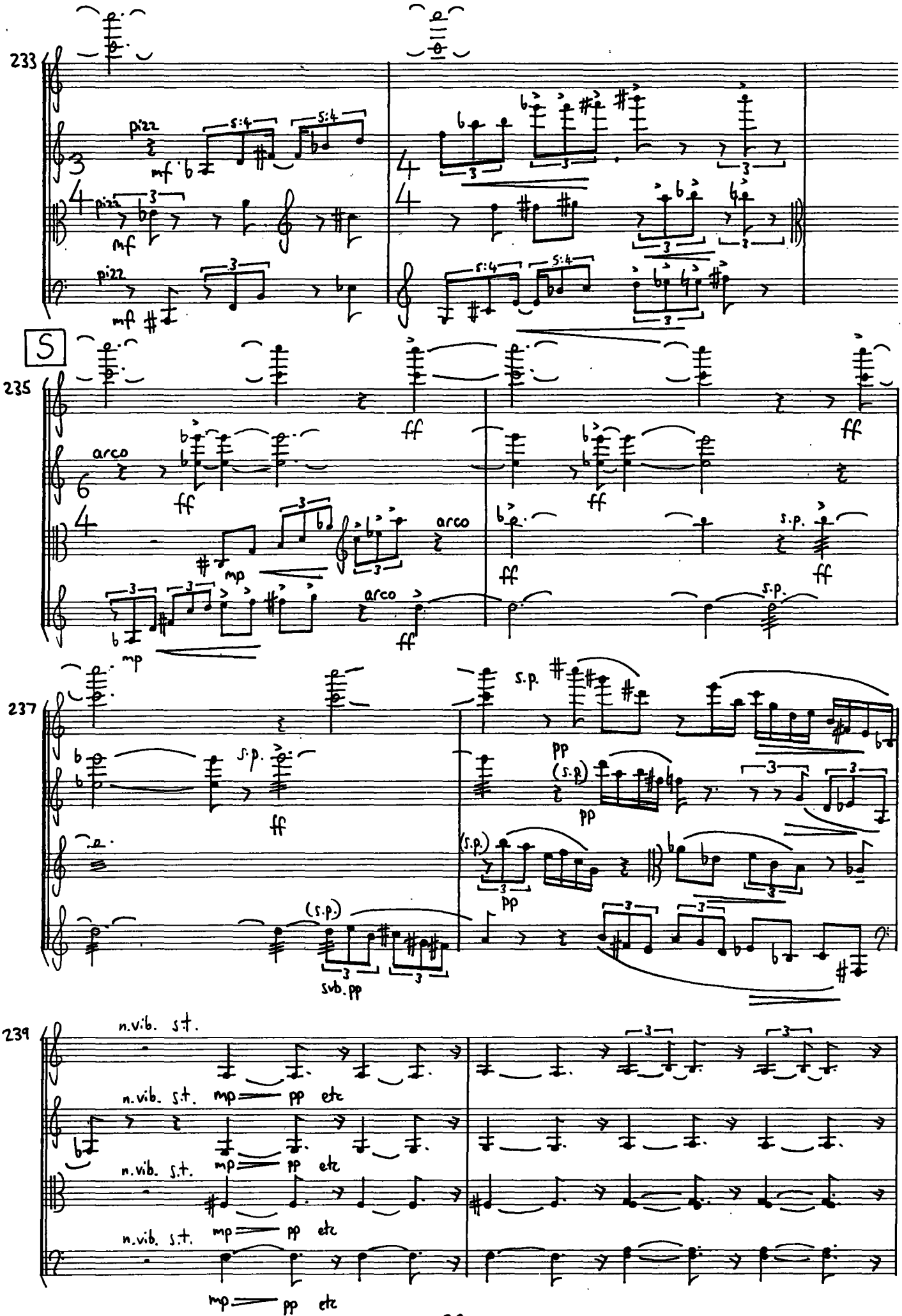

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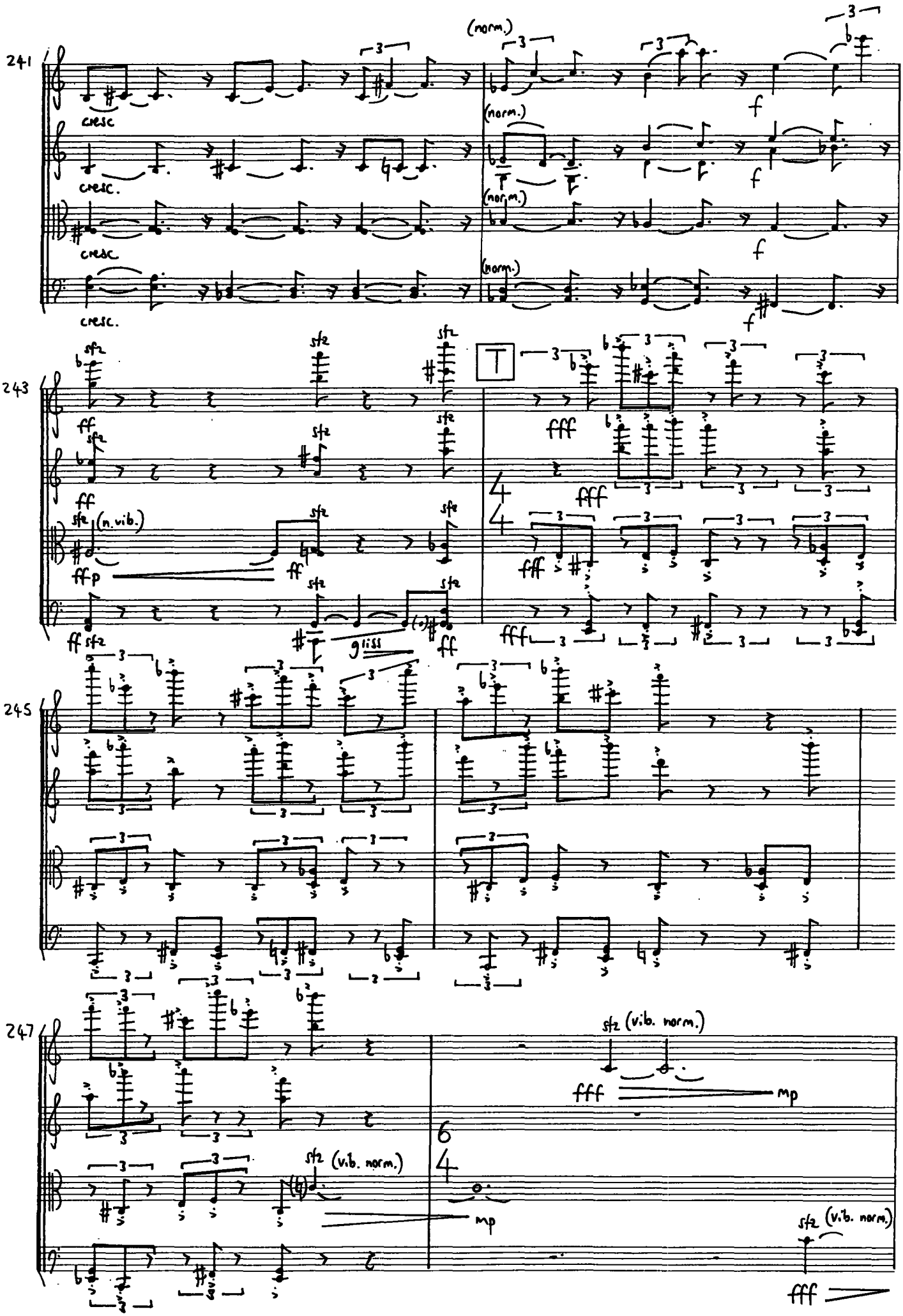

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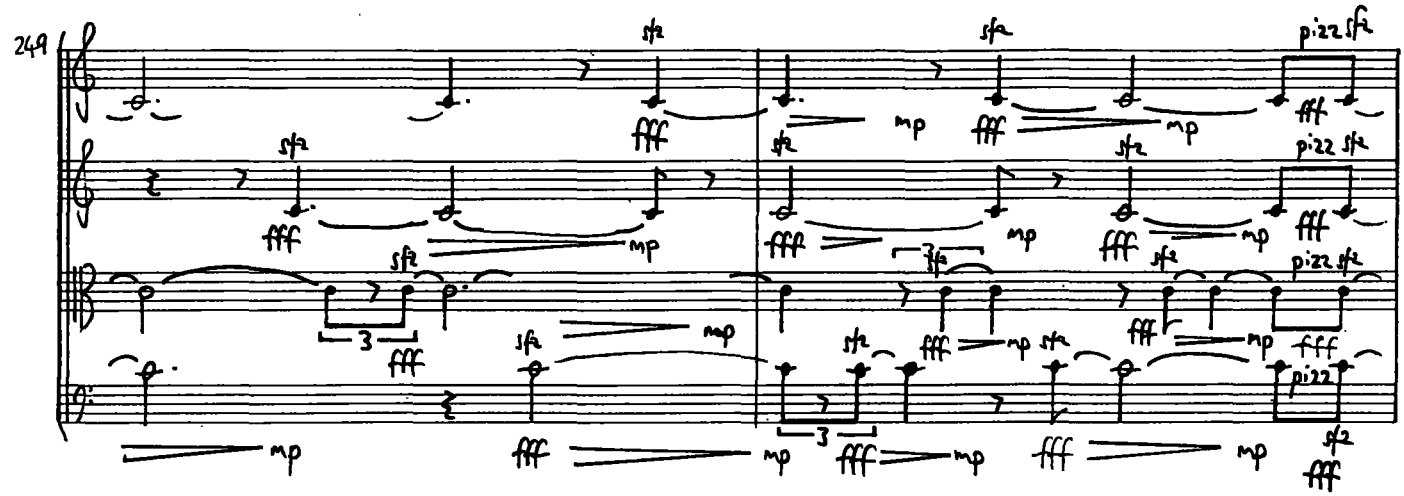

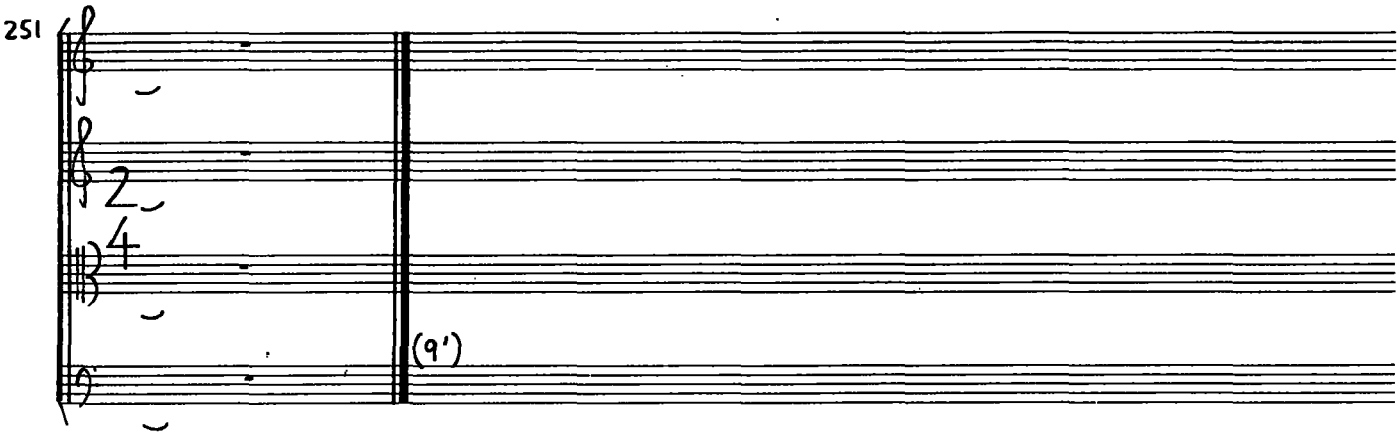

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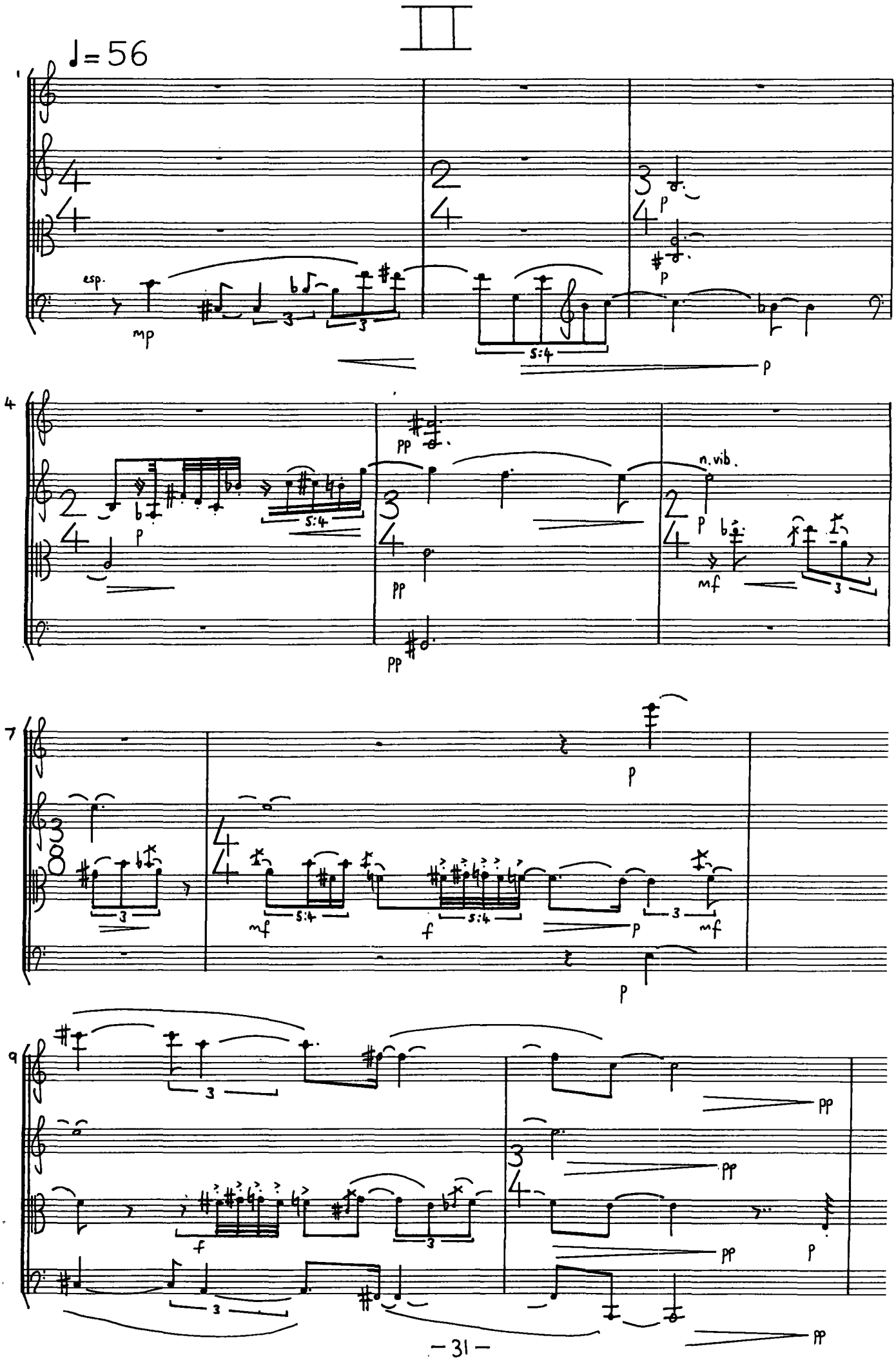

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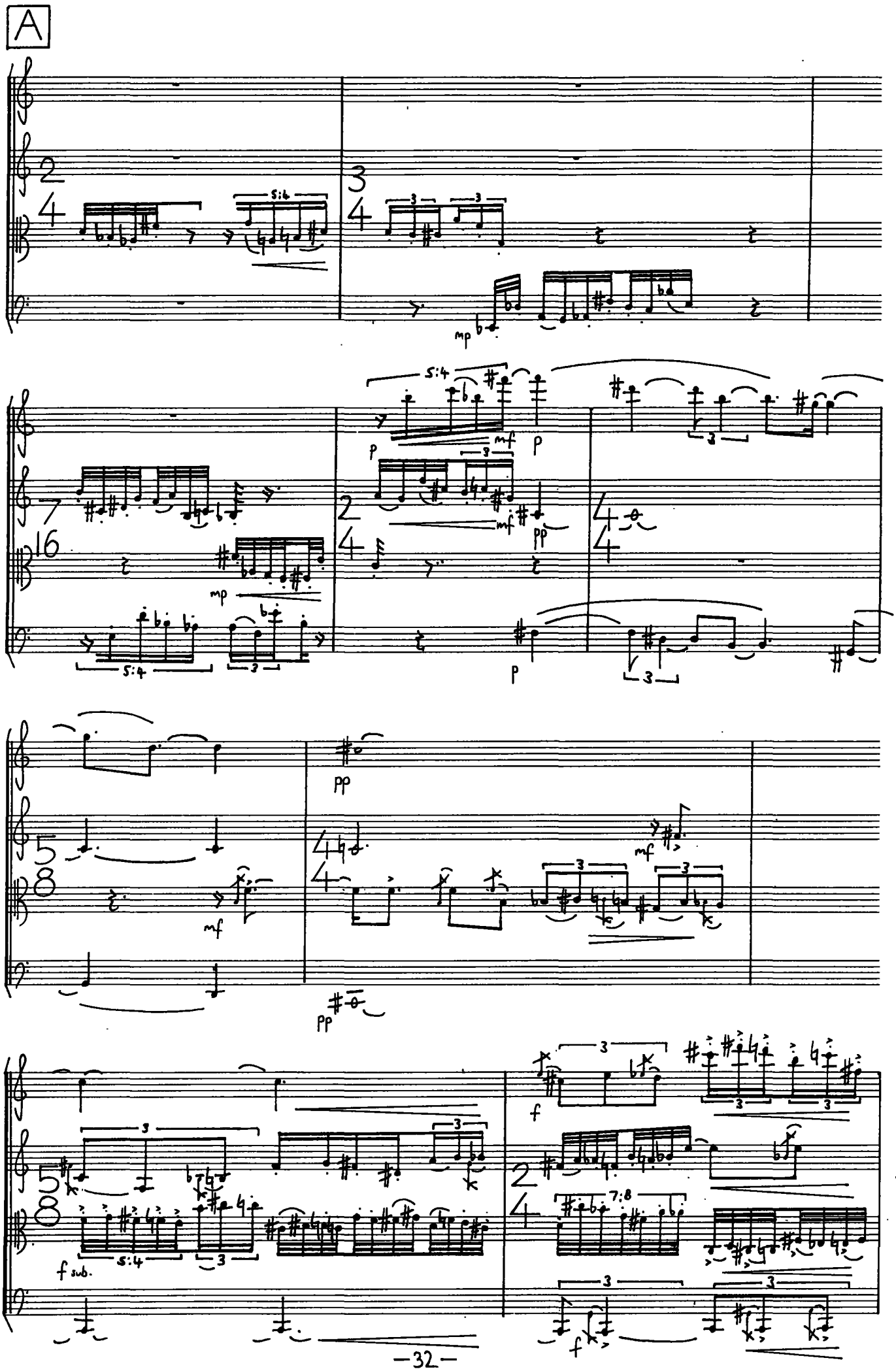

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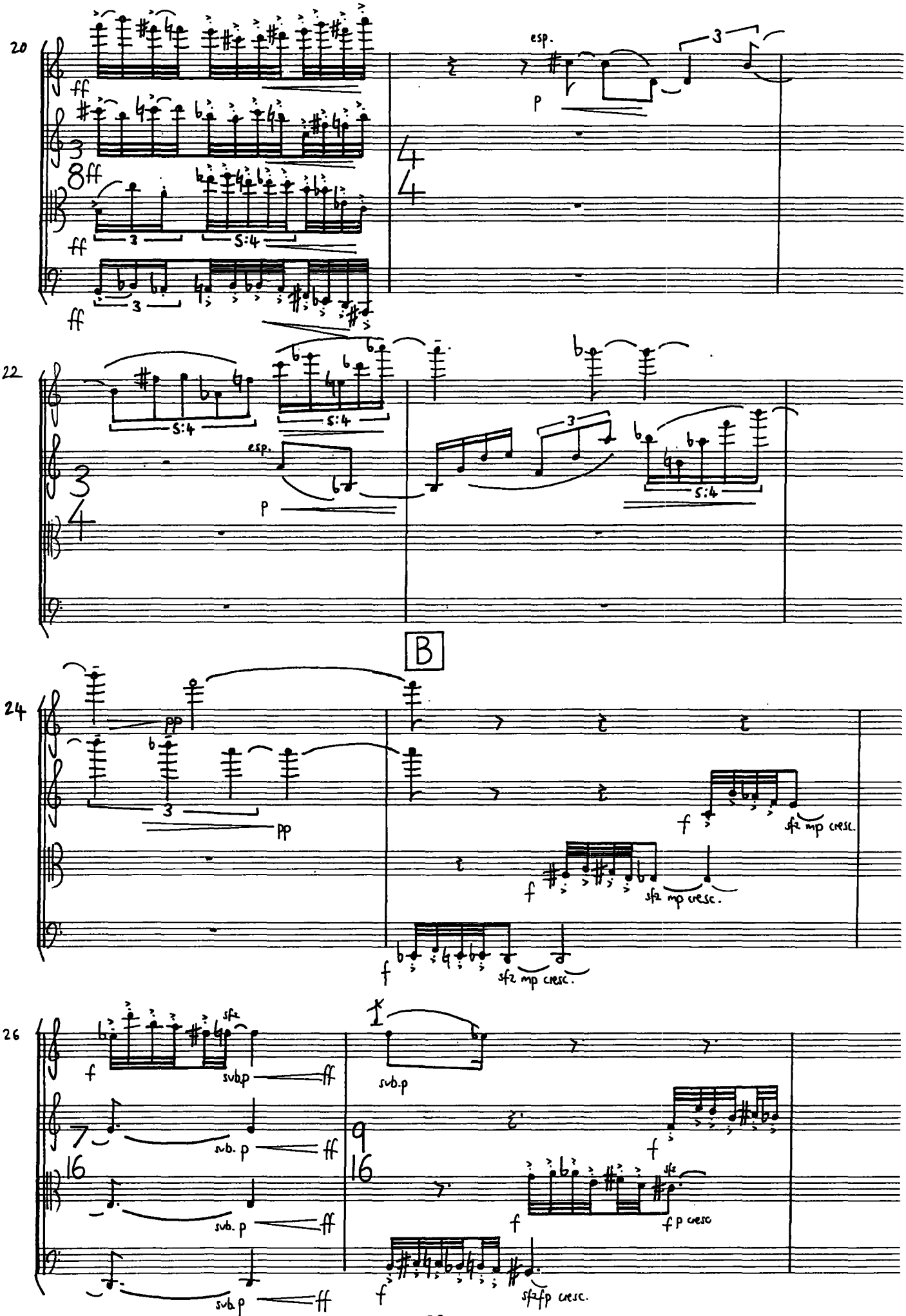

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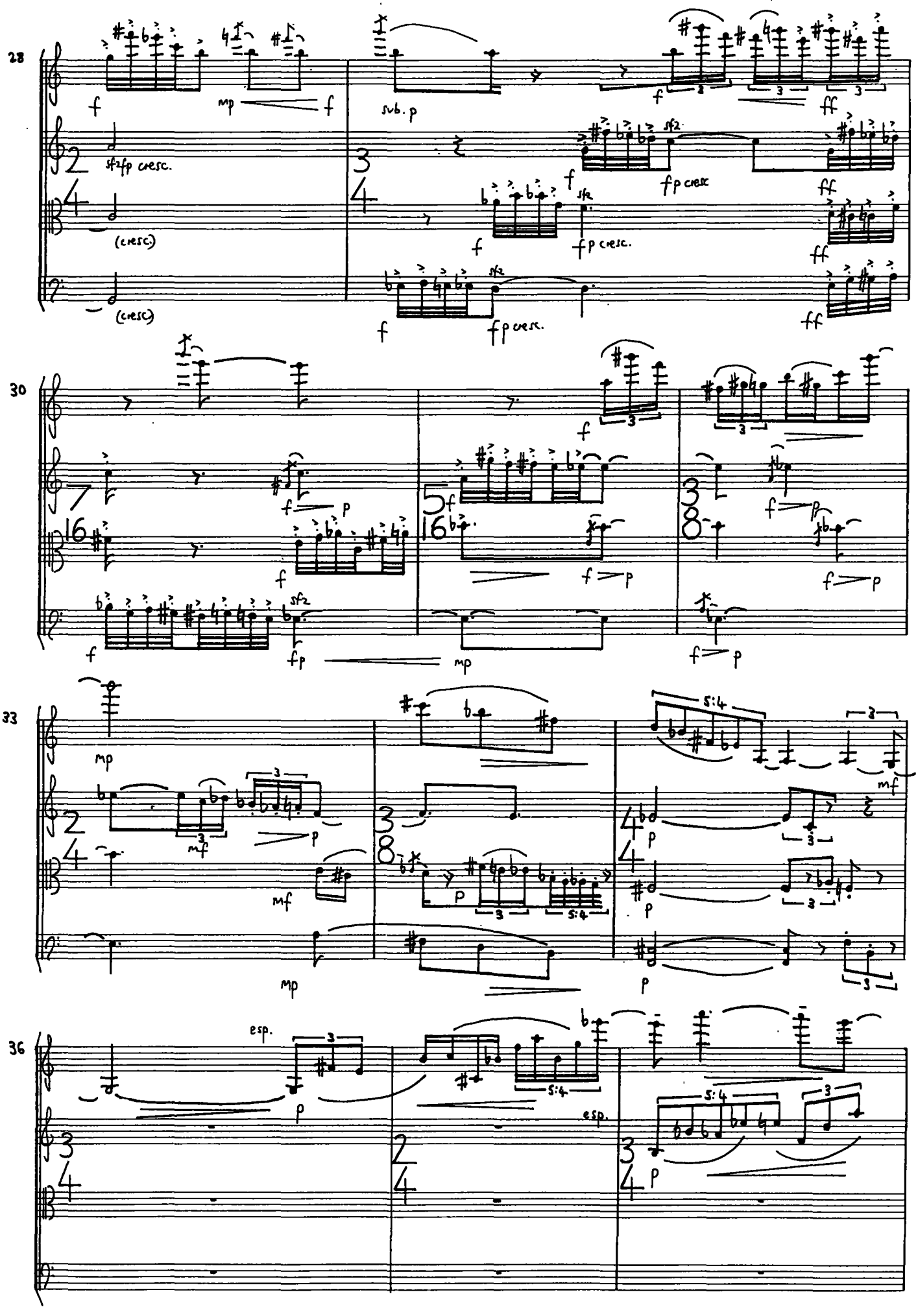

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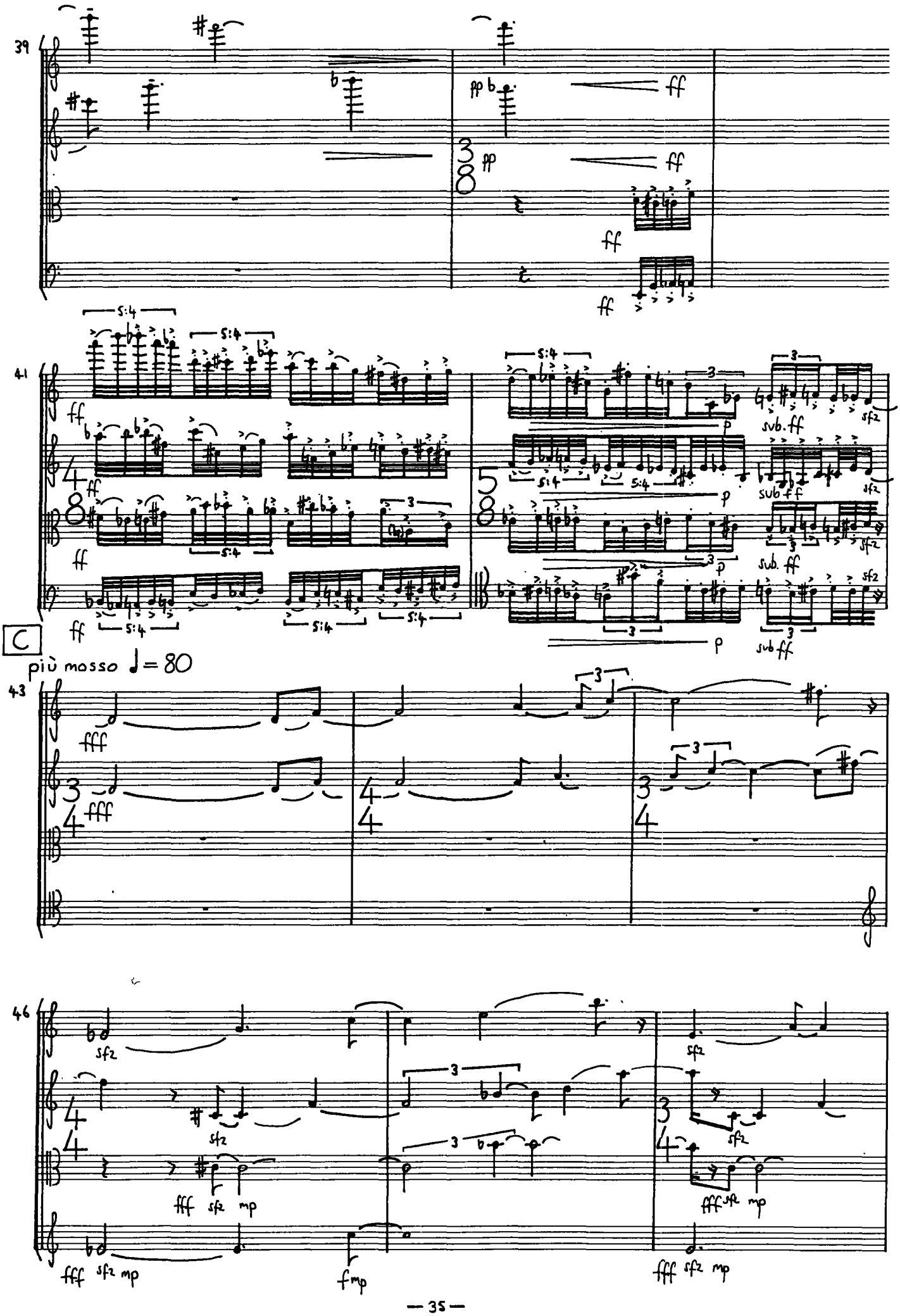

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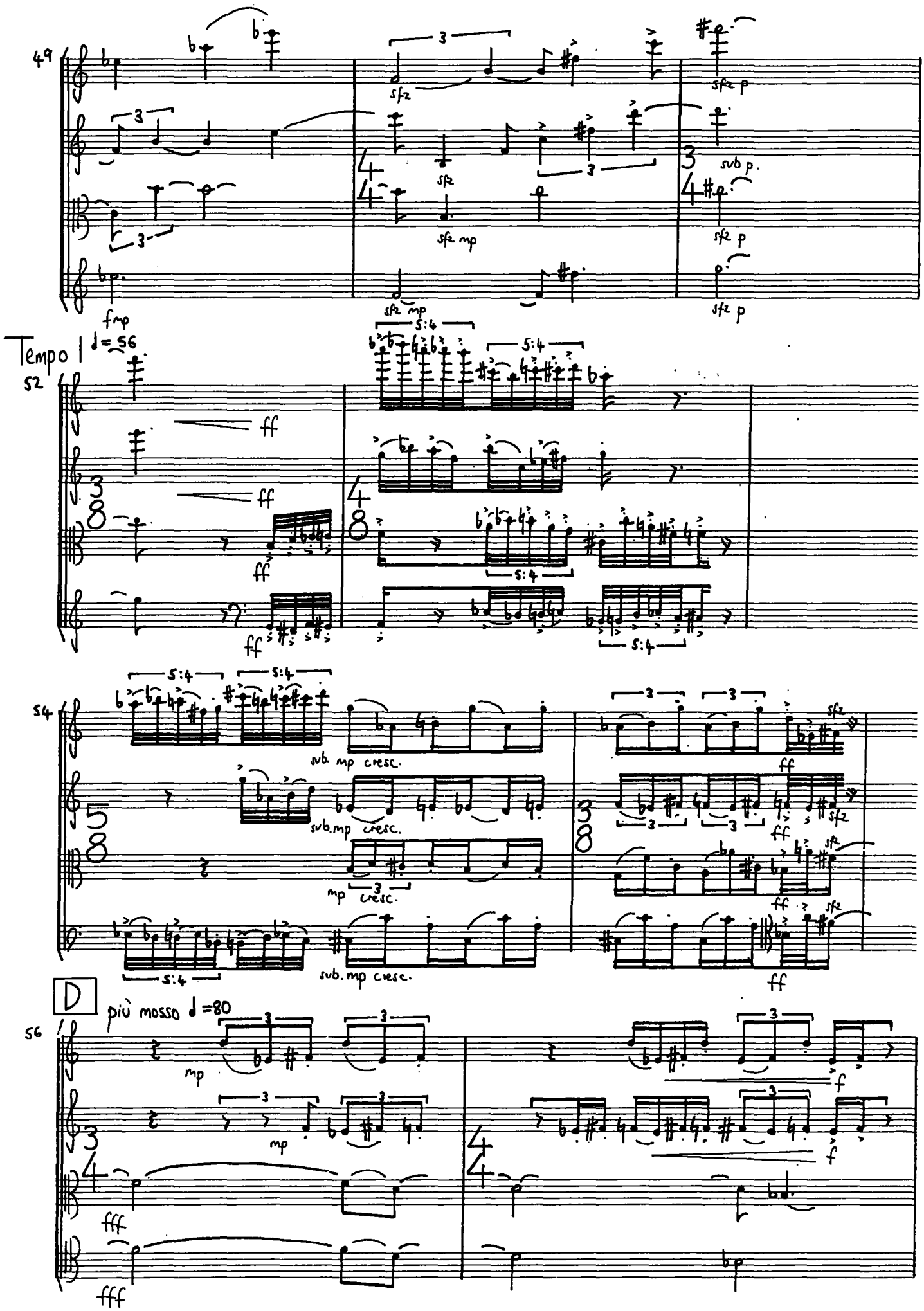

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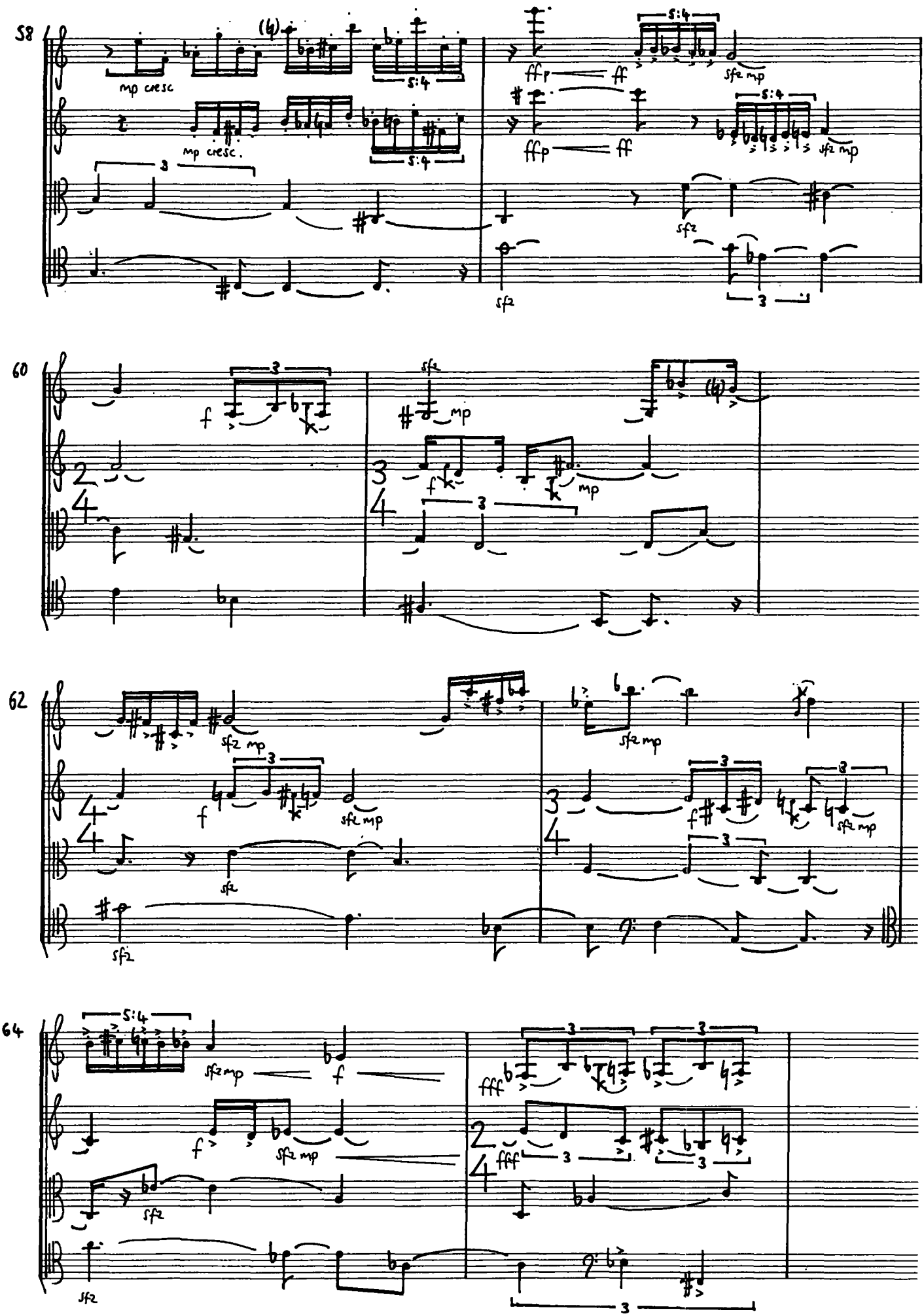

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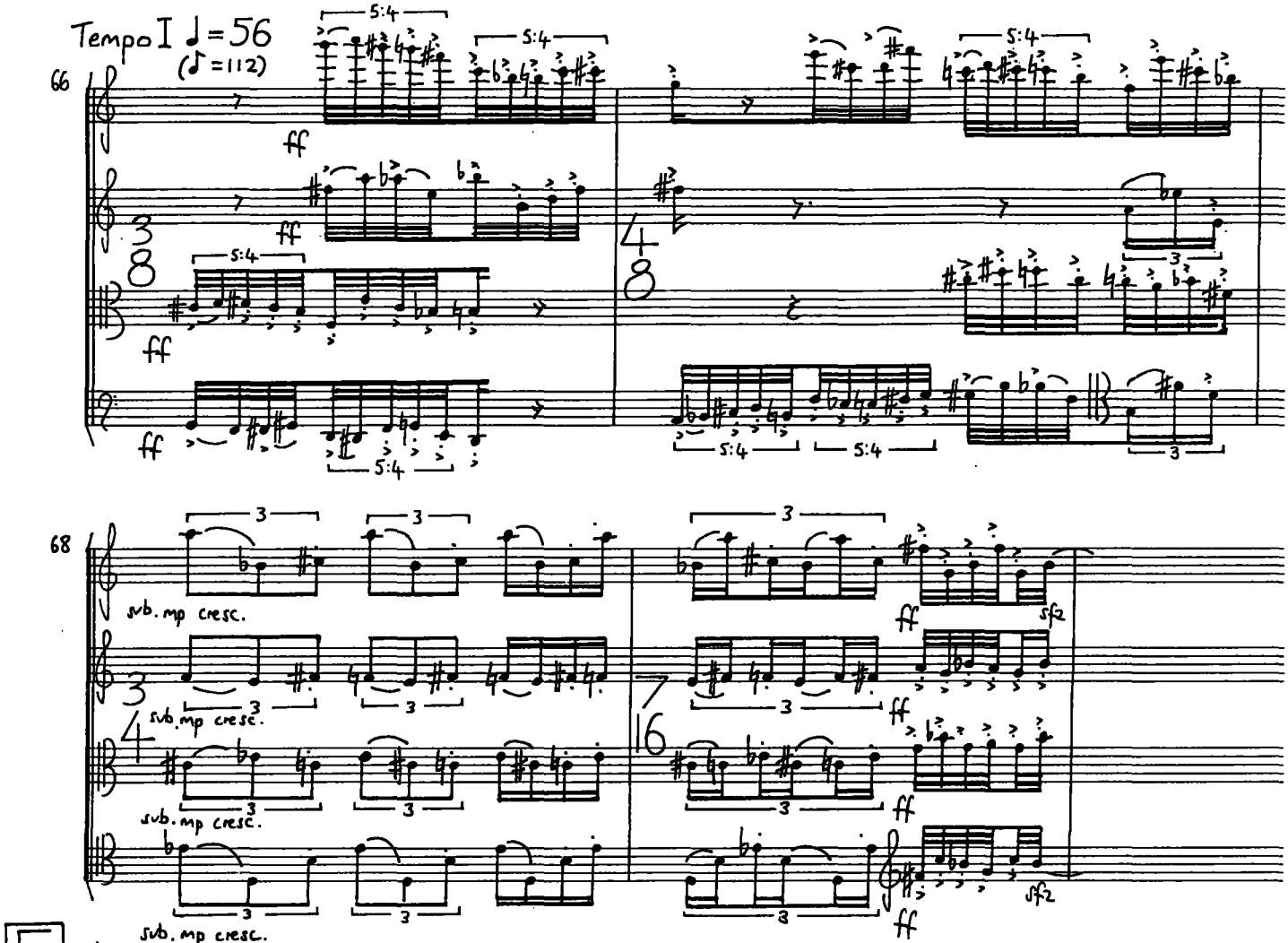

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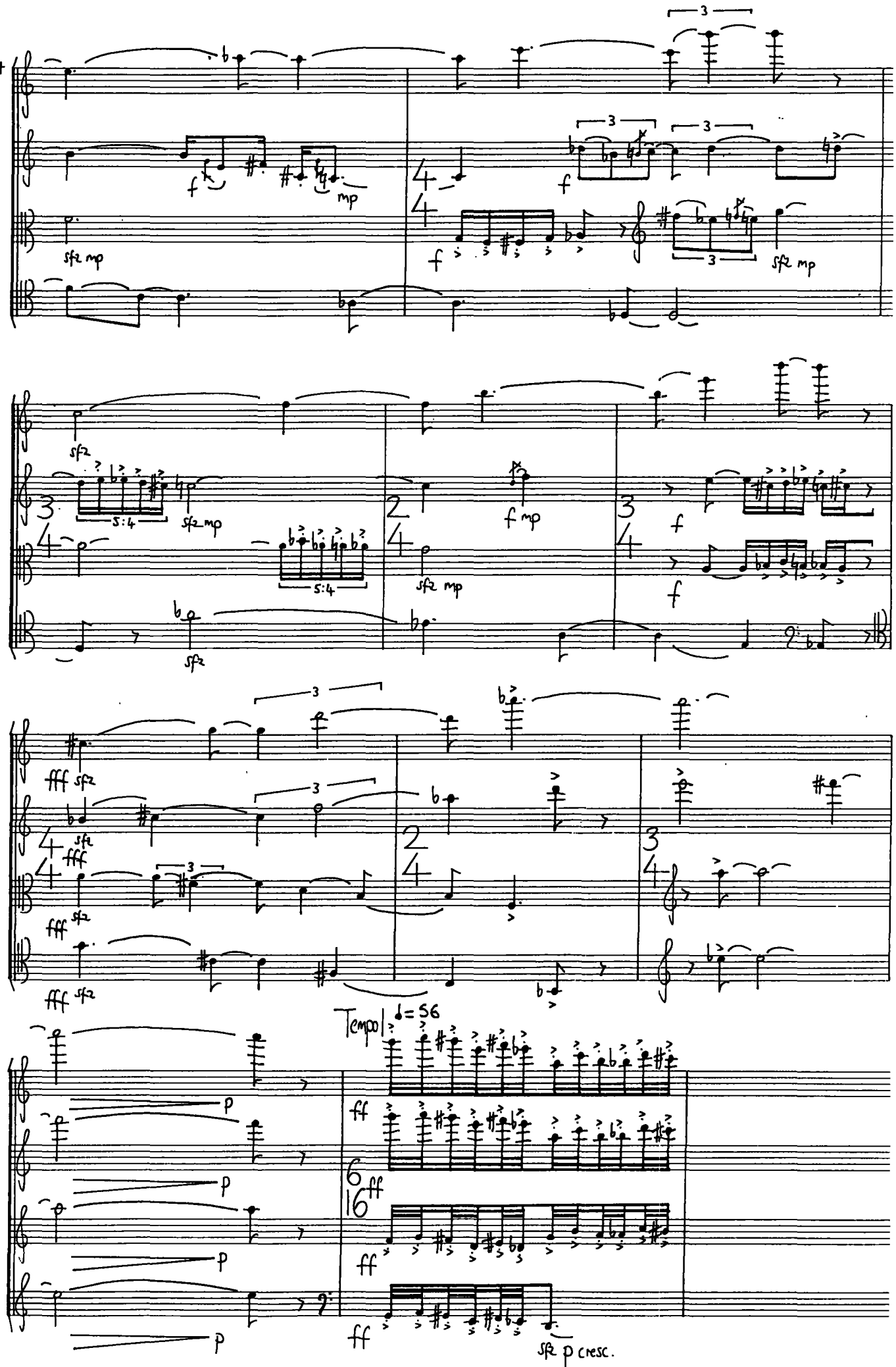

D4-4 PANOPUS SCORE-SYSTEM ©
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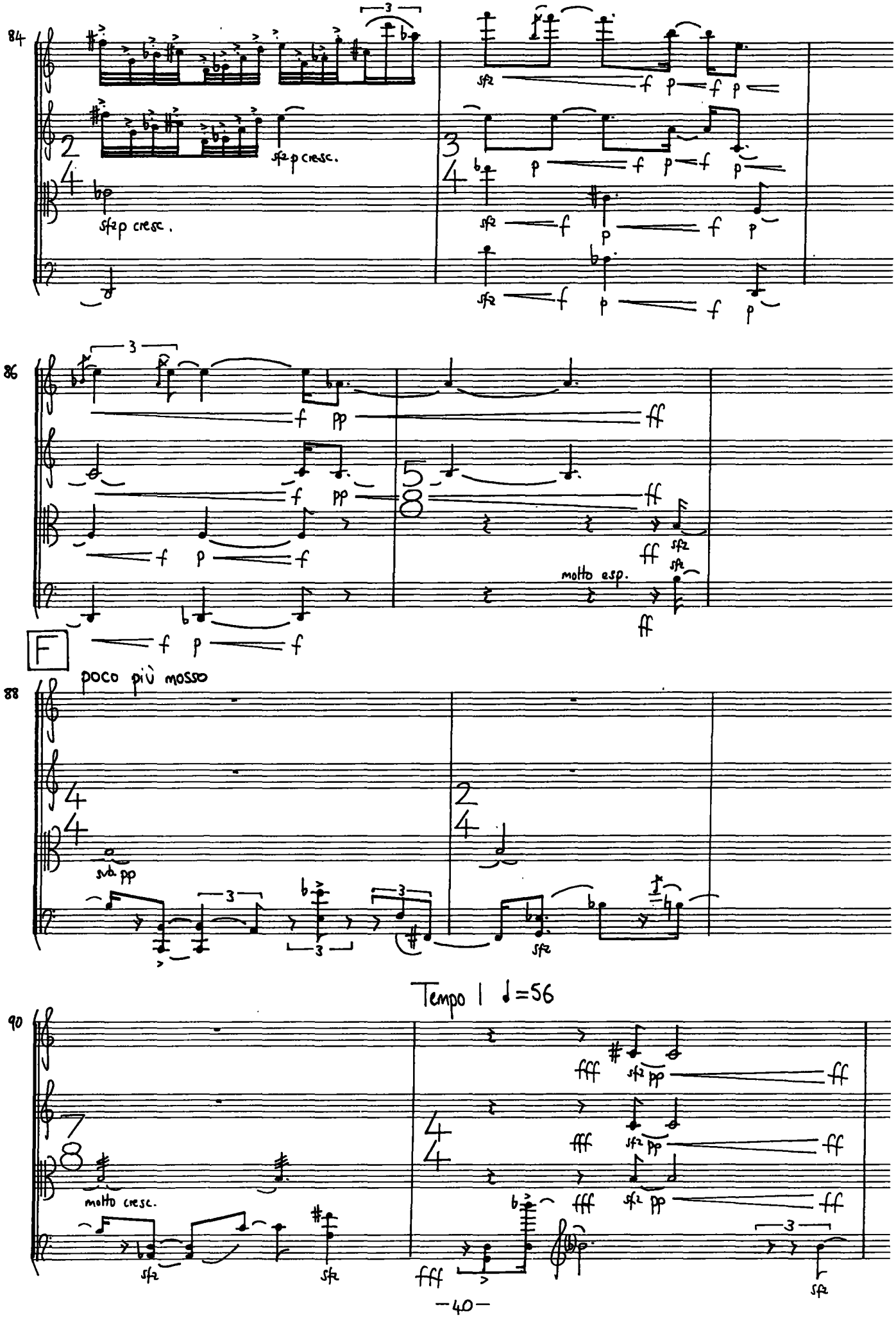

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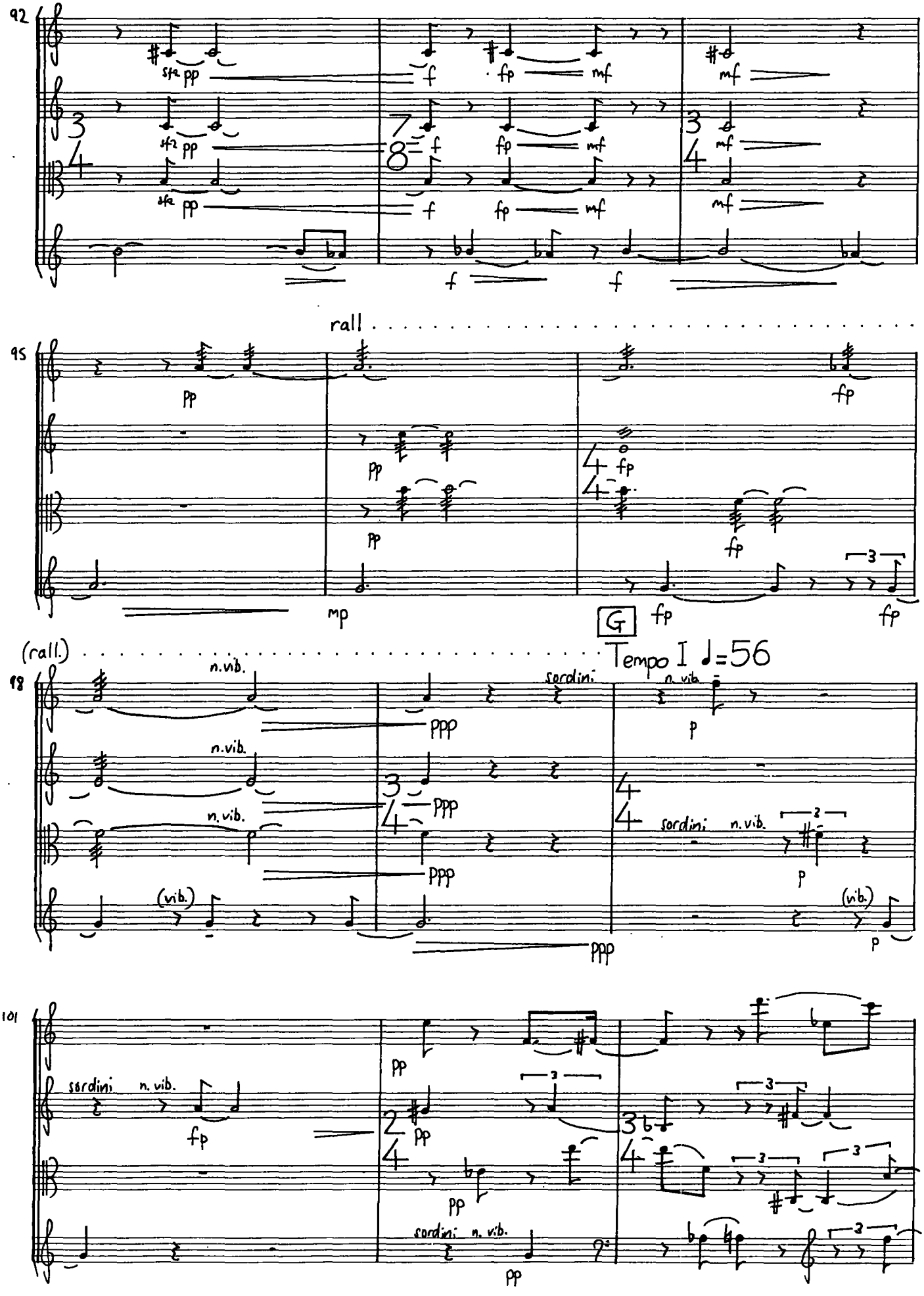

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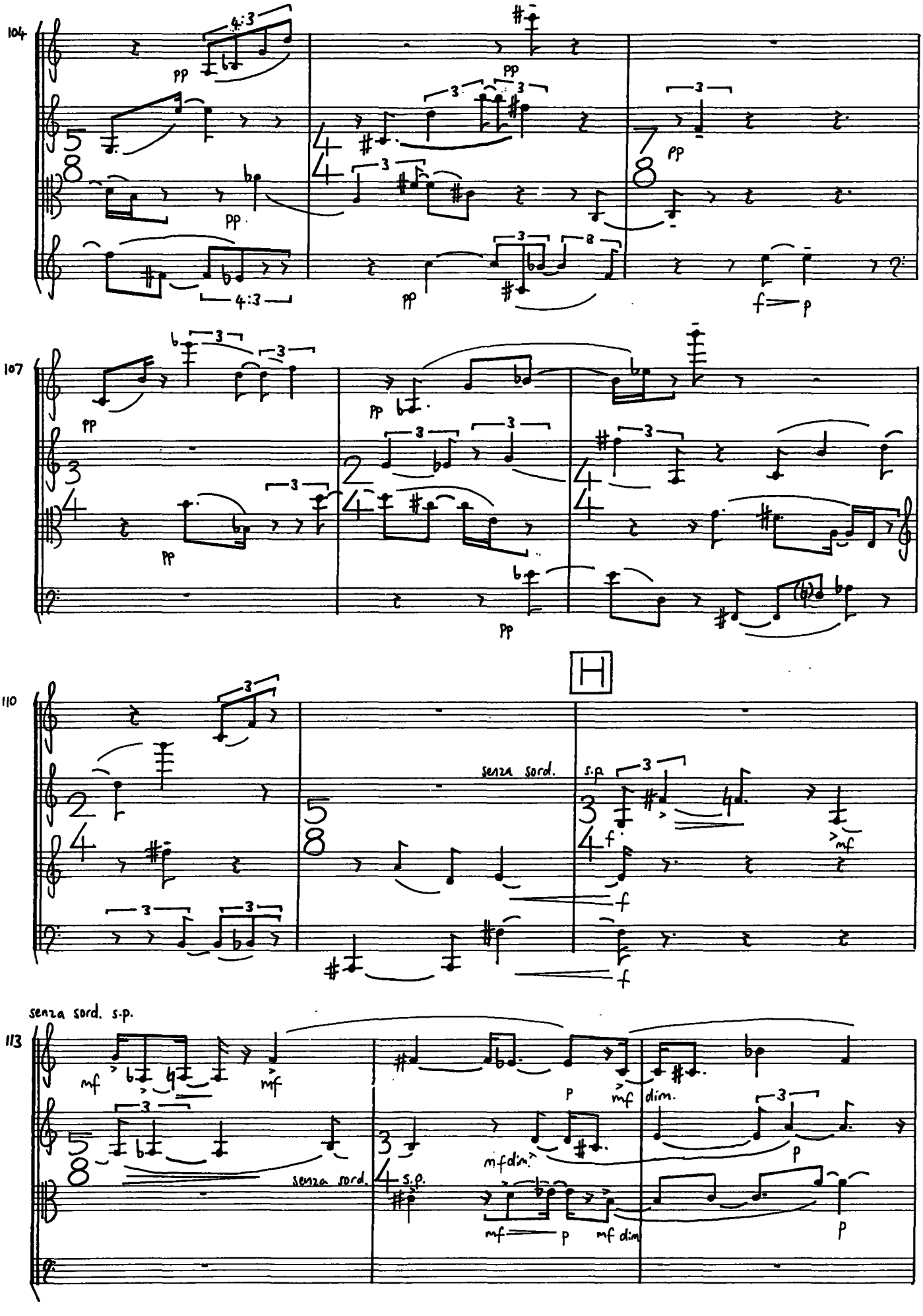

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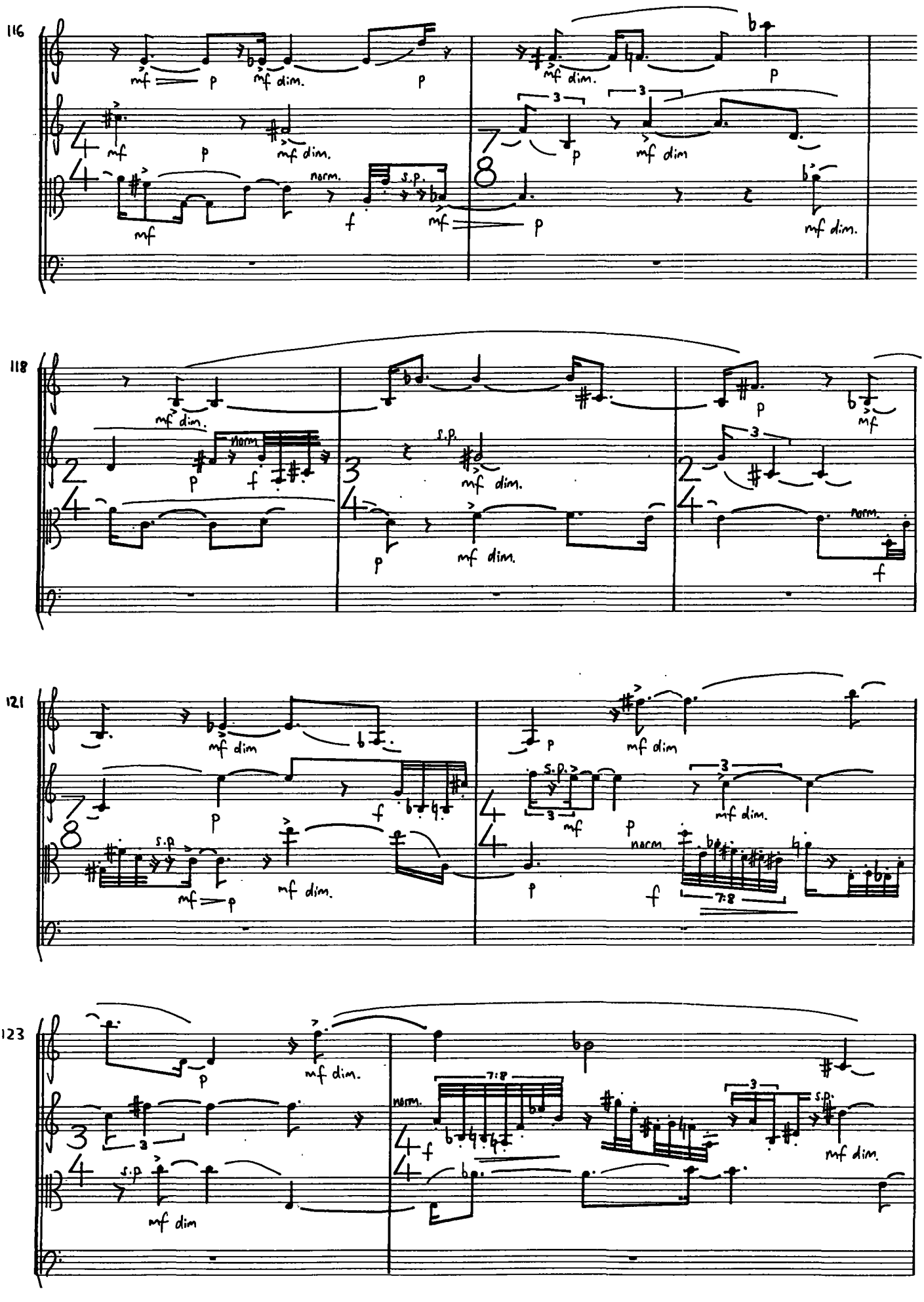

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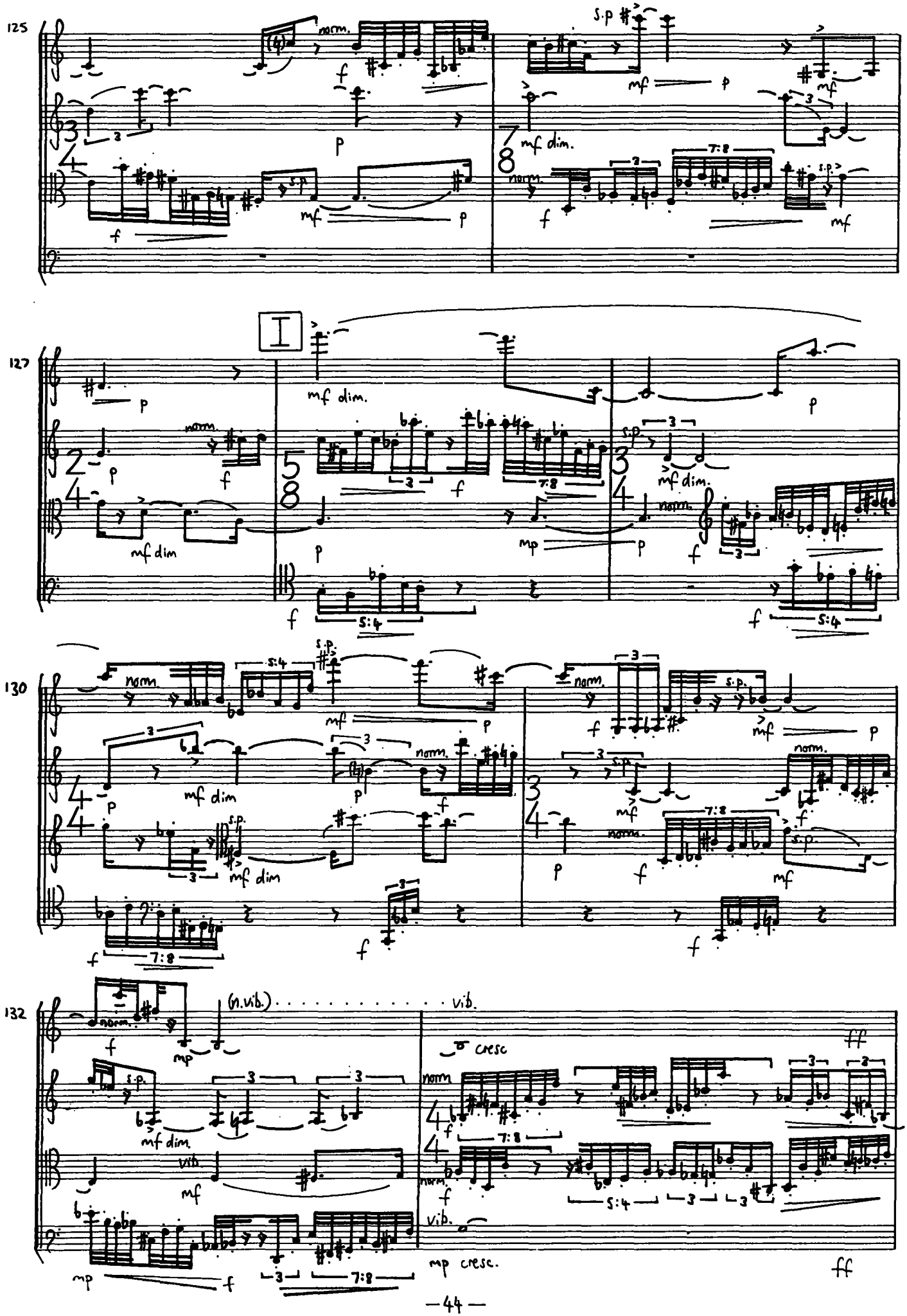

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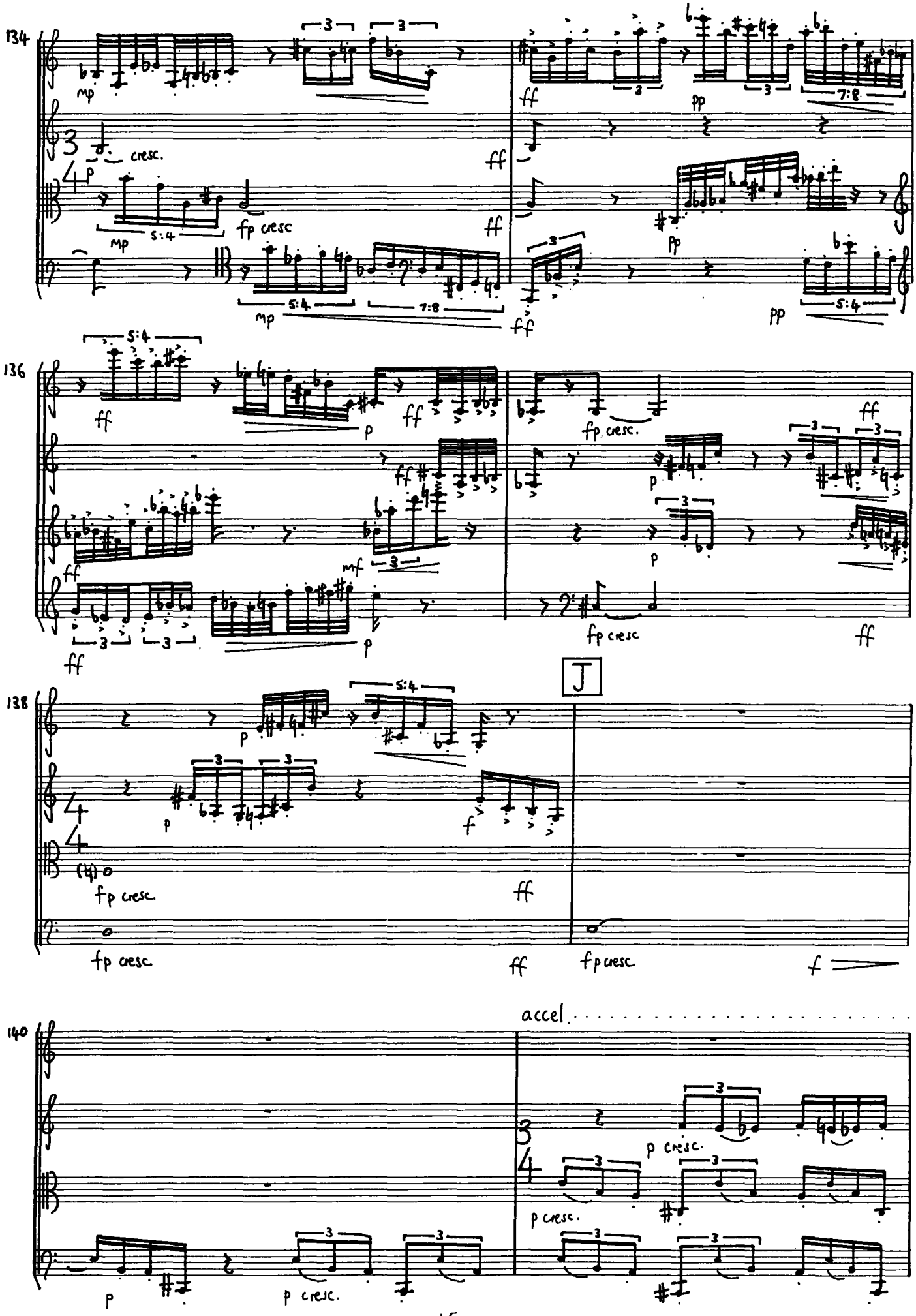

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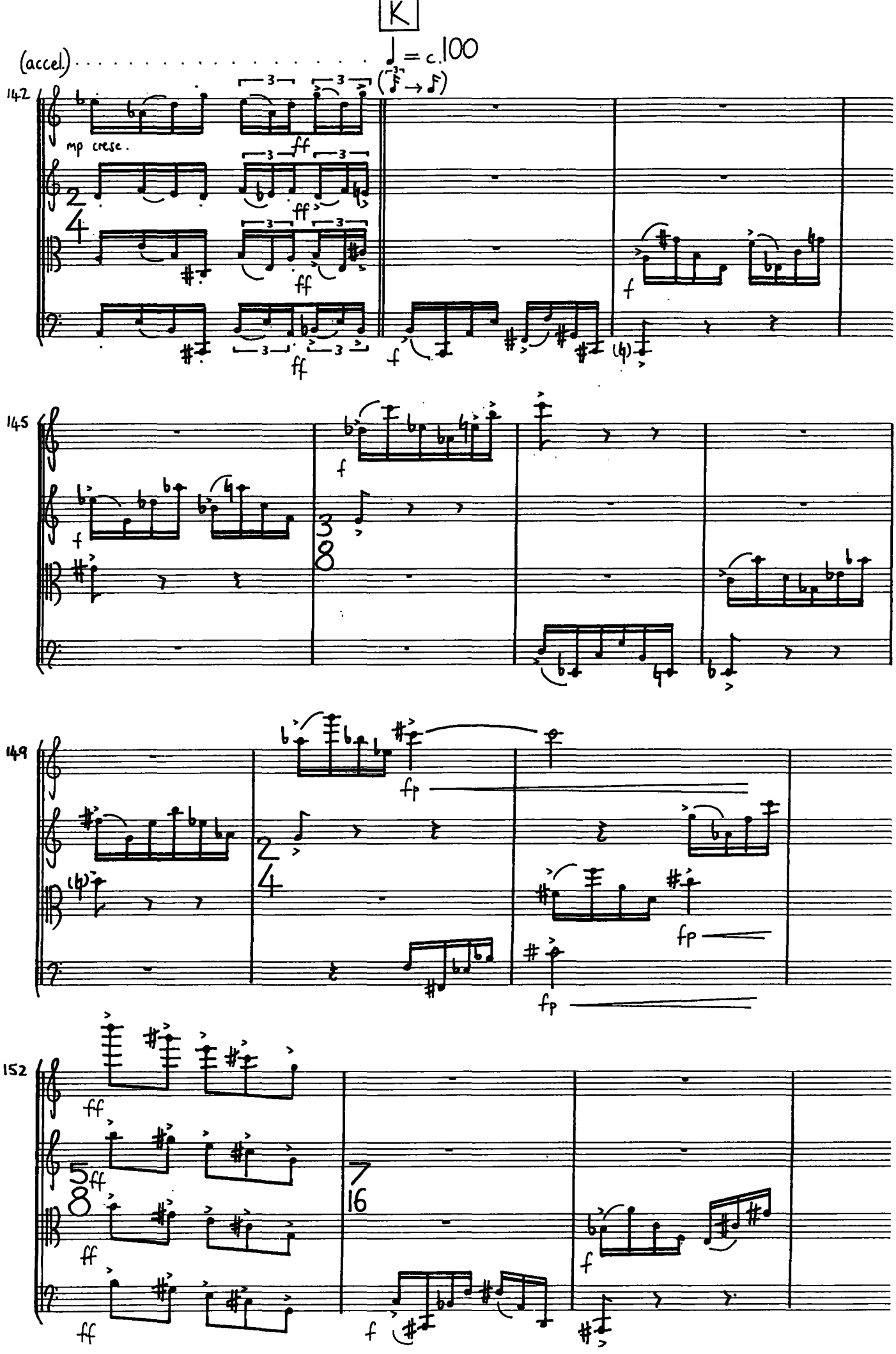

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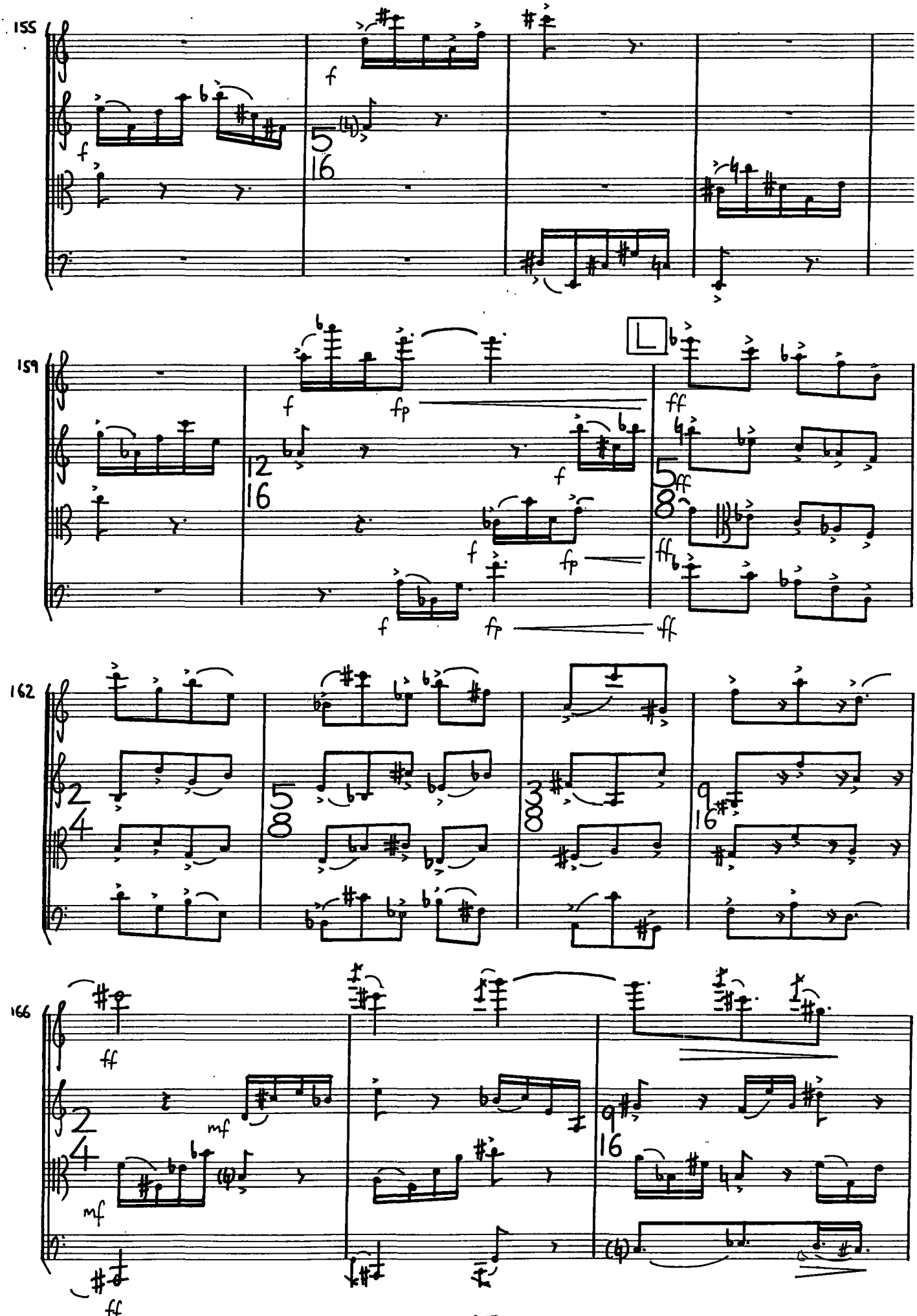

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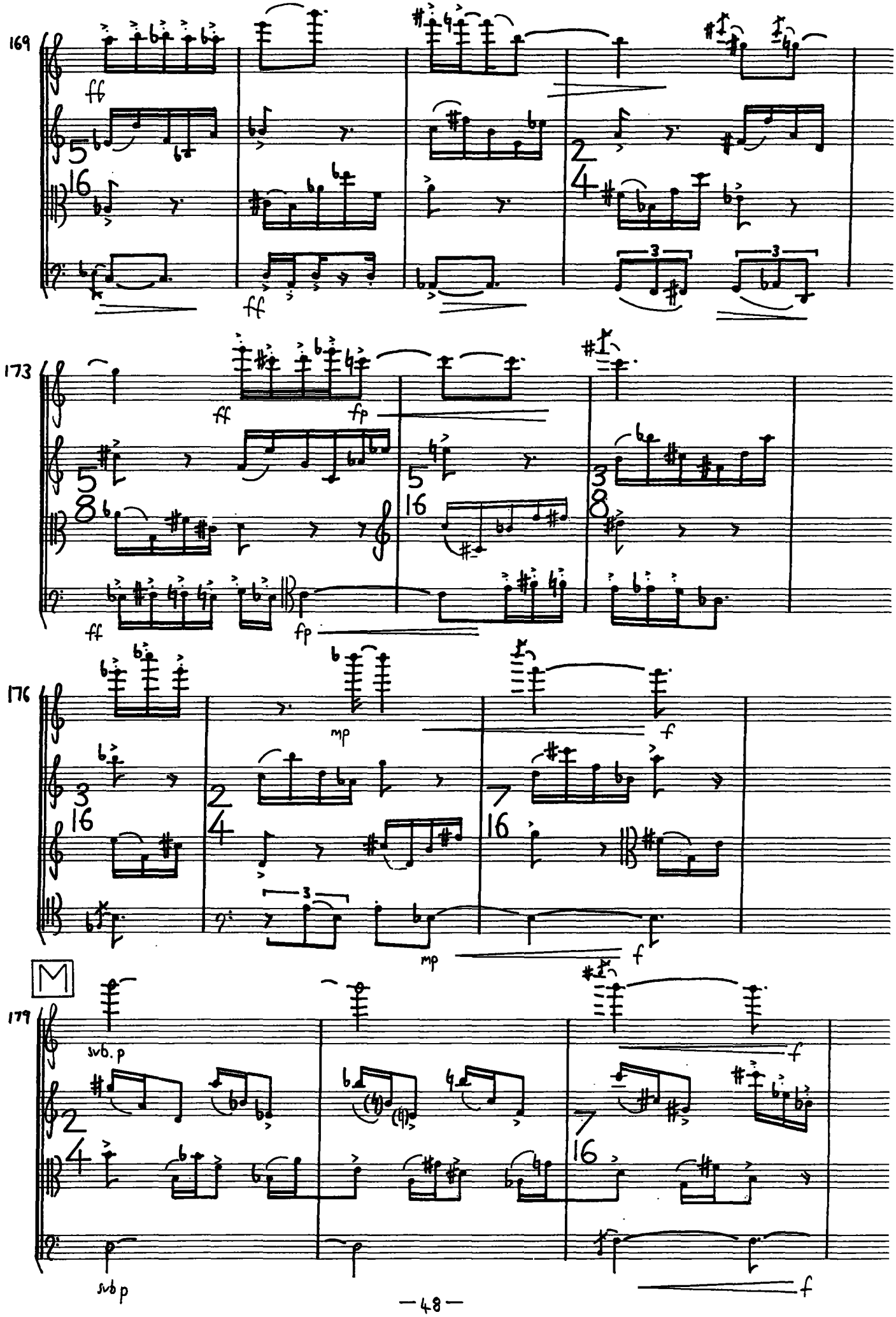

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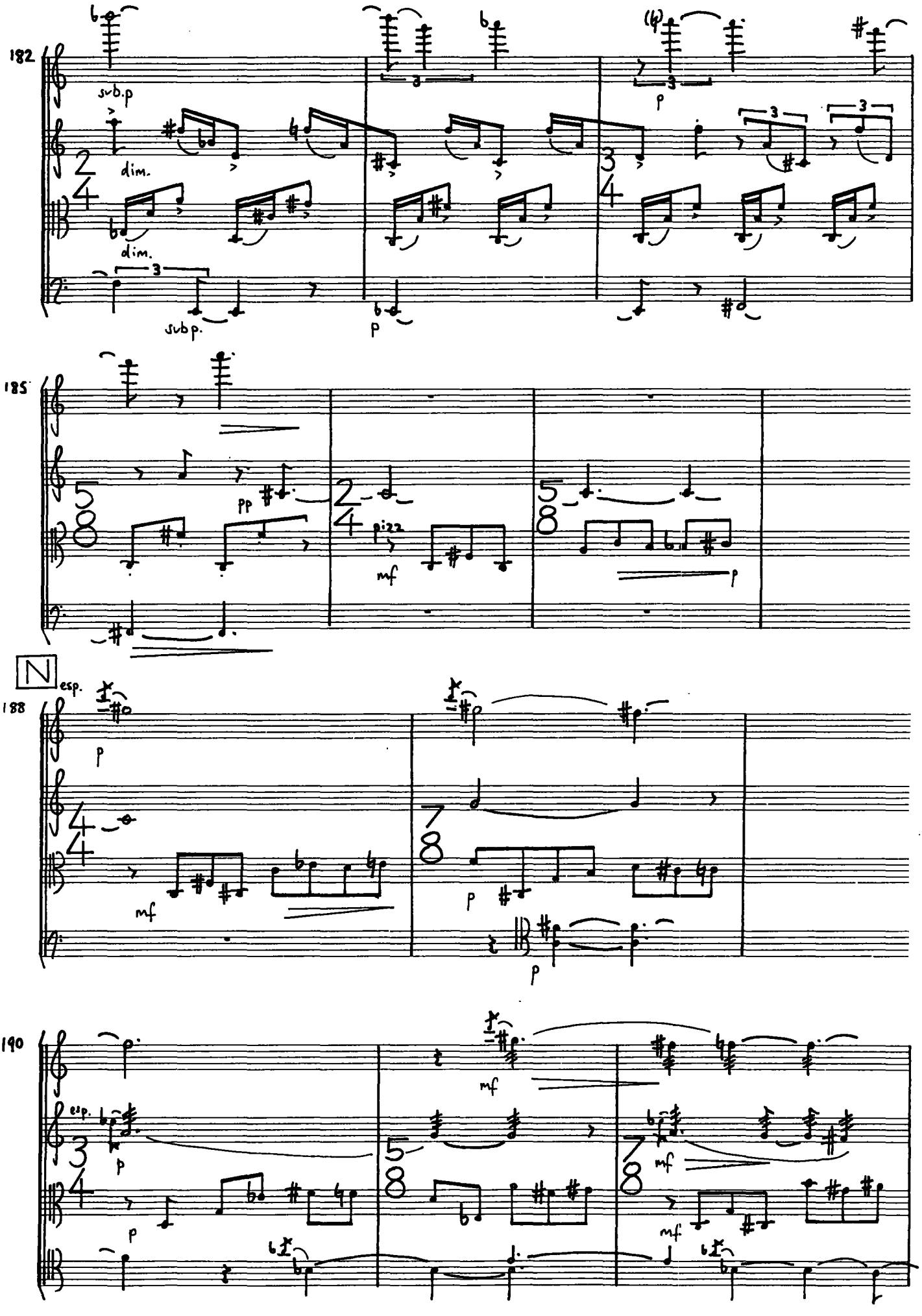

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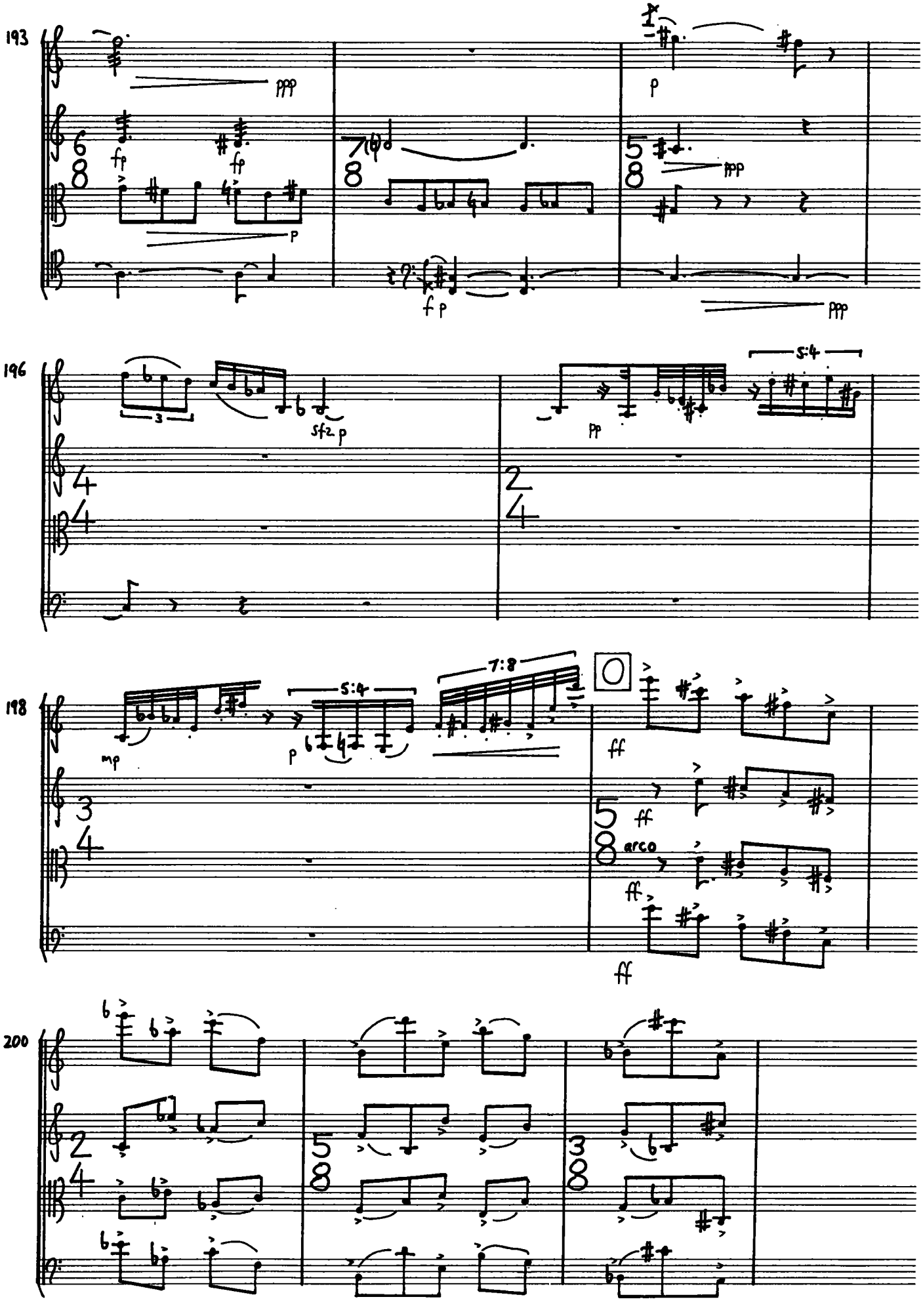

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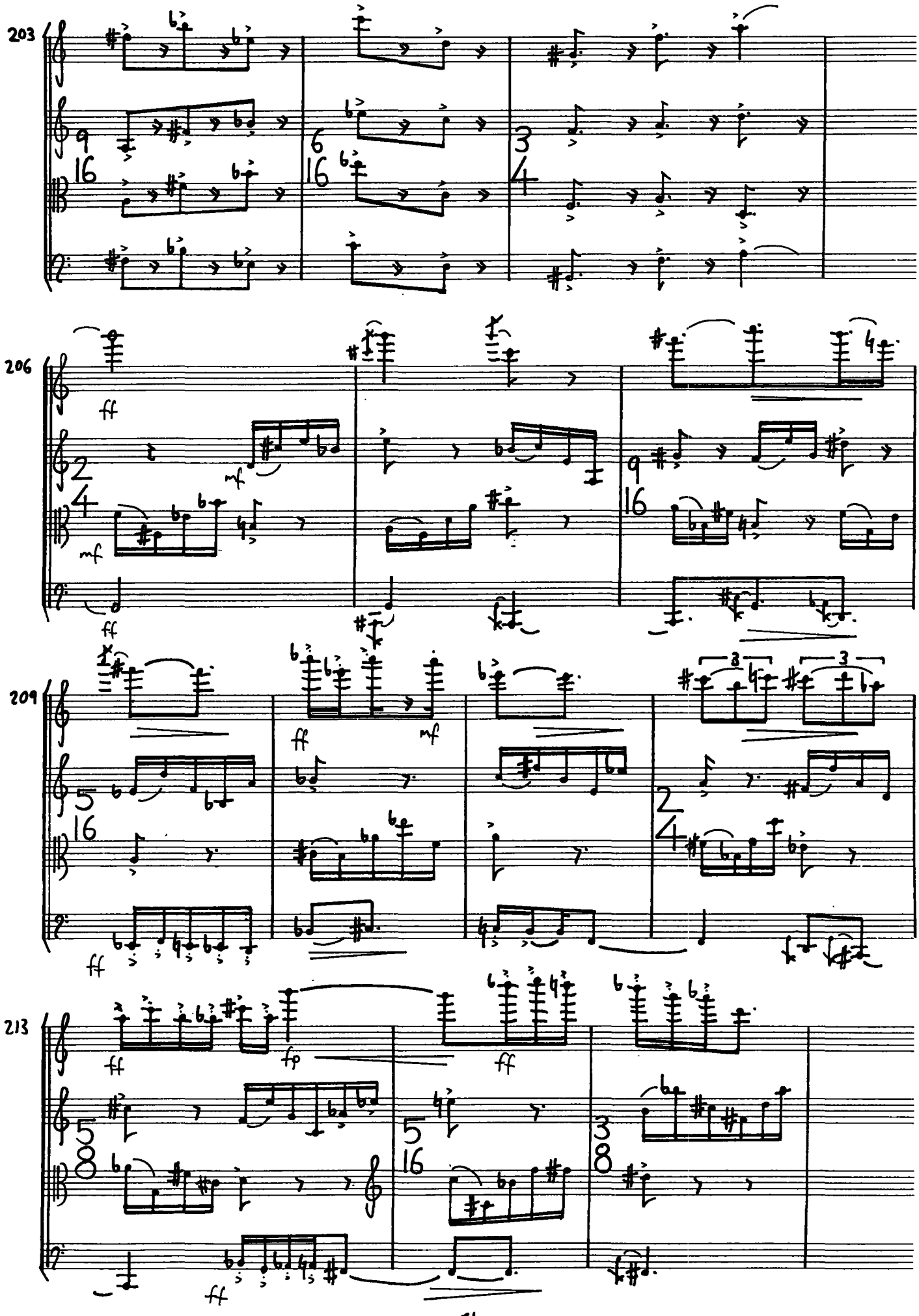

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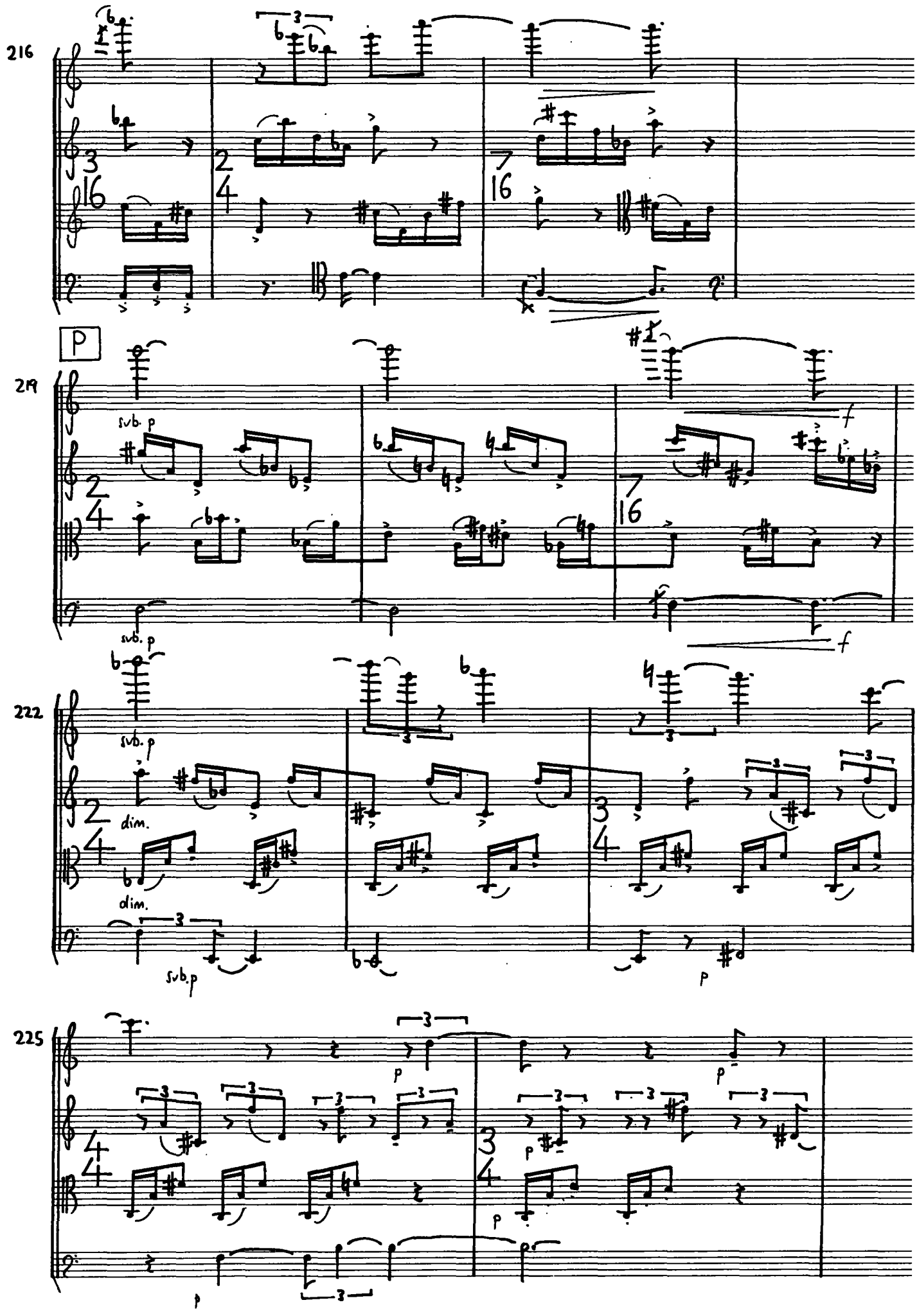

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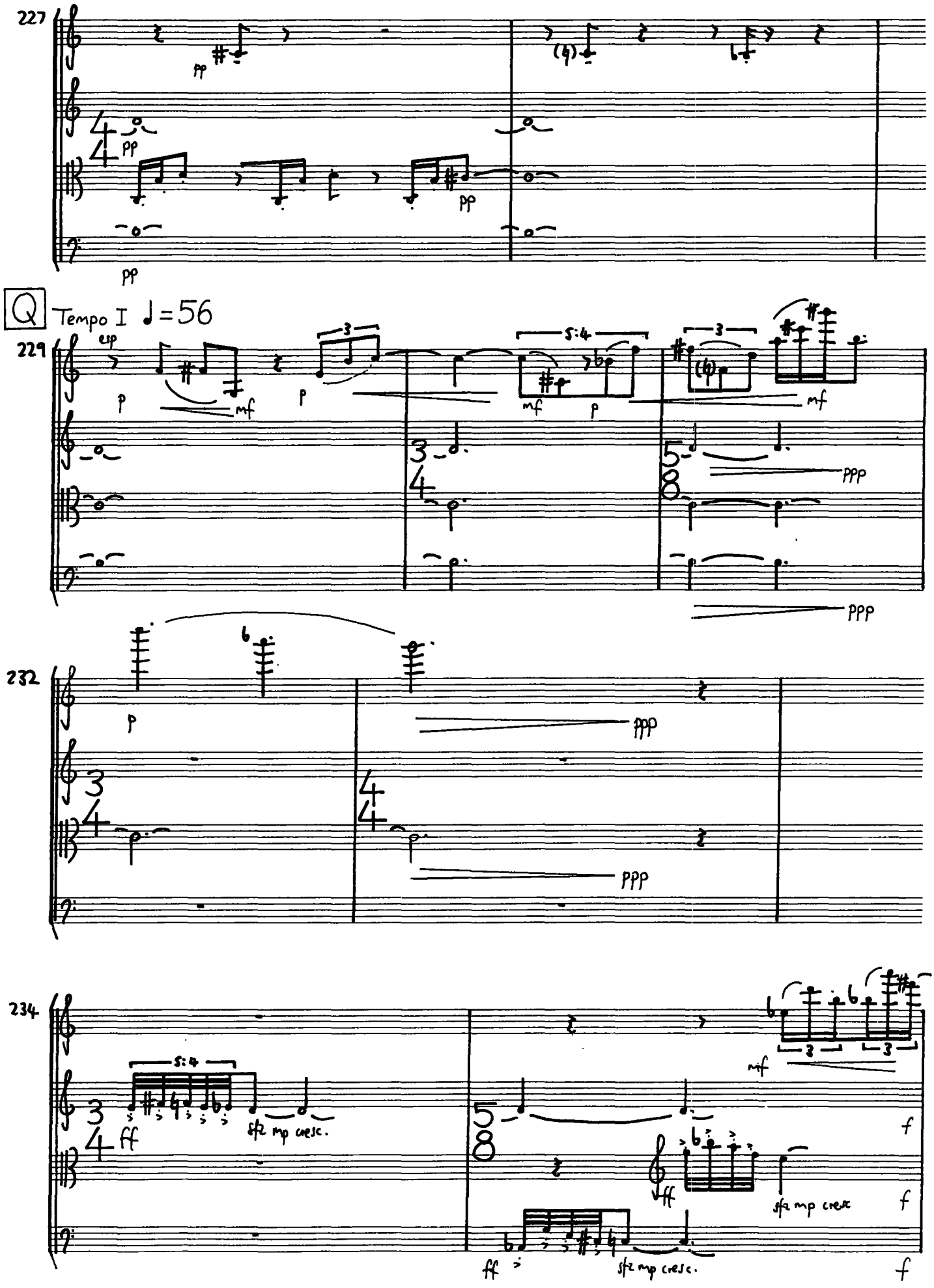

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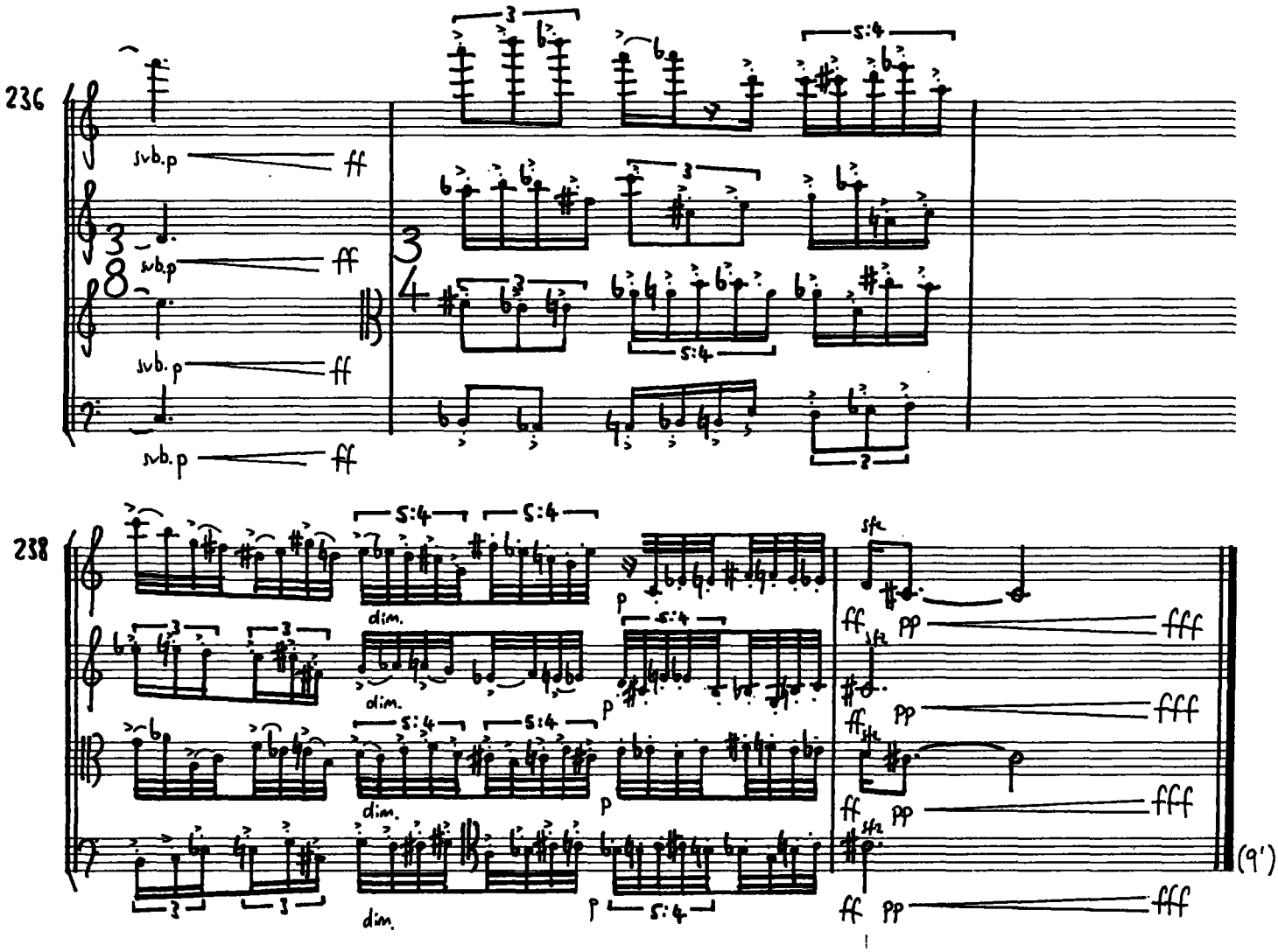

PANOPUS SCORE-SYSTEM
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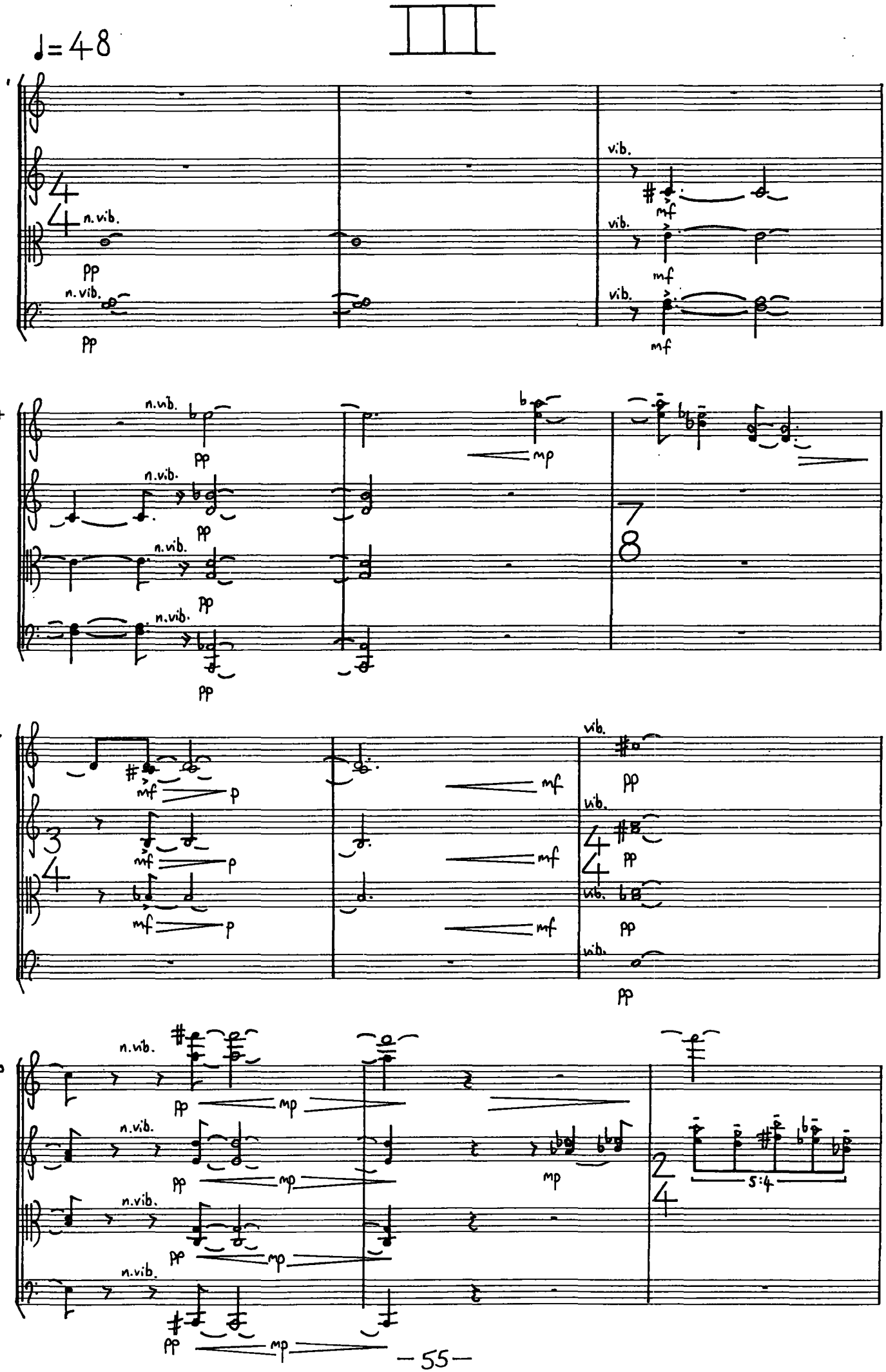

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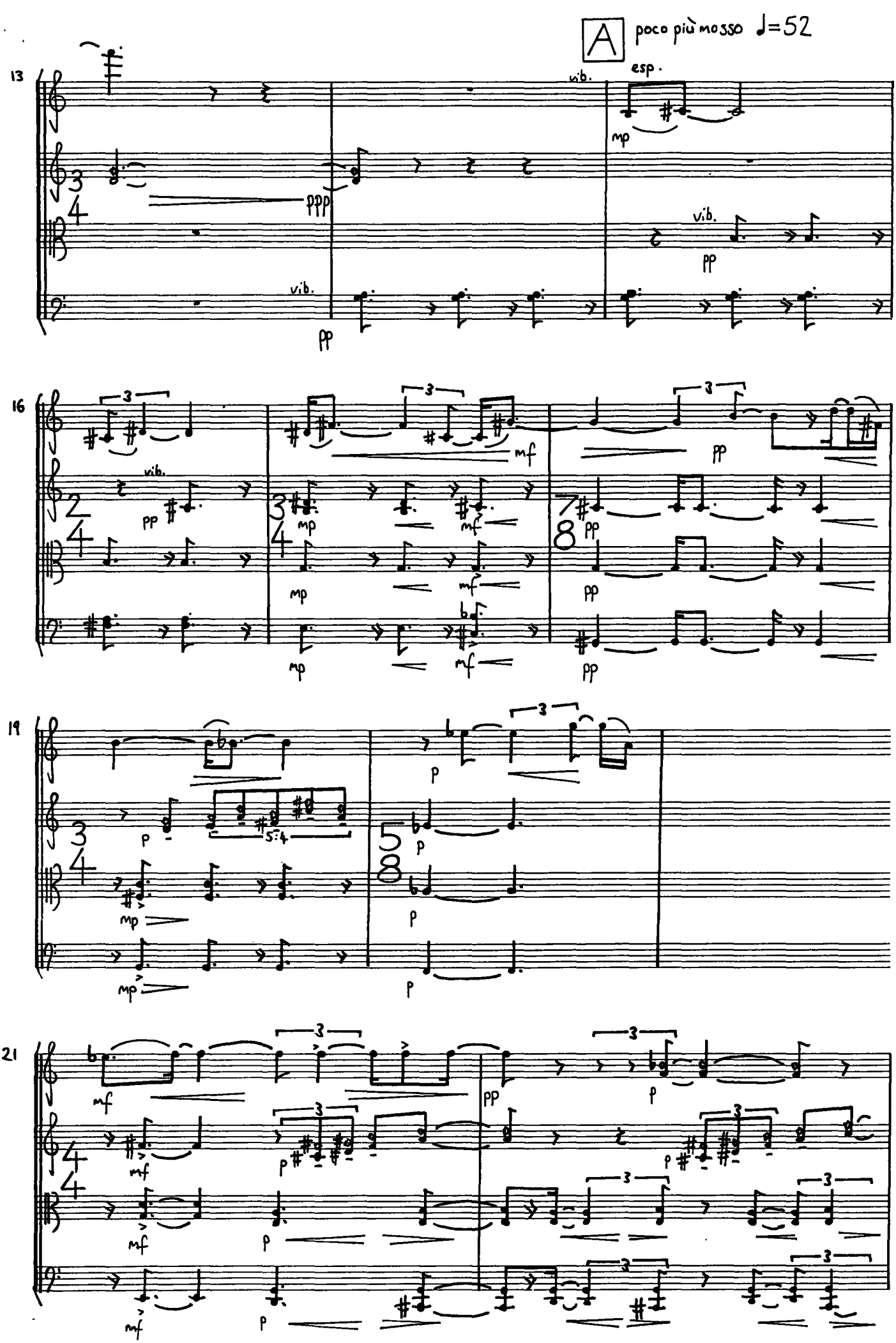

D4-4 PANOPUS SCORE-SYSTEM©

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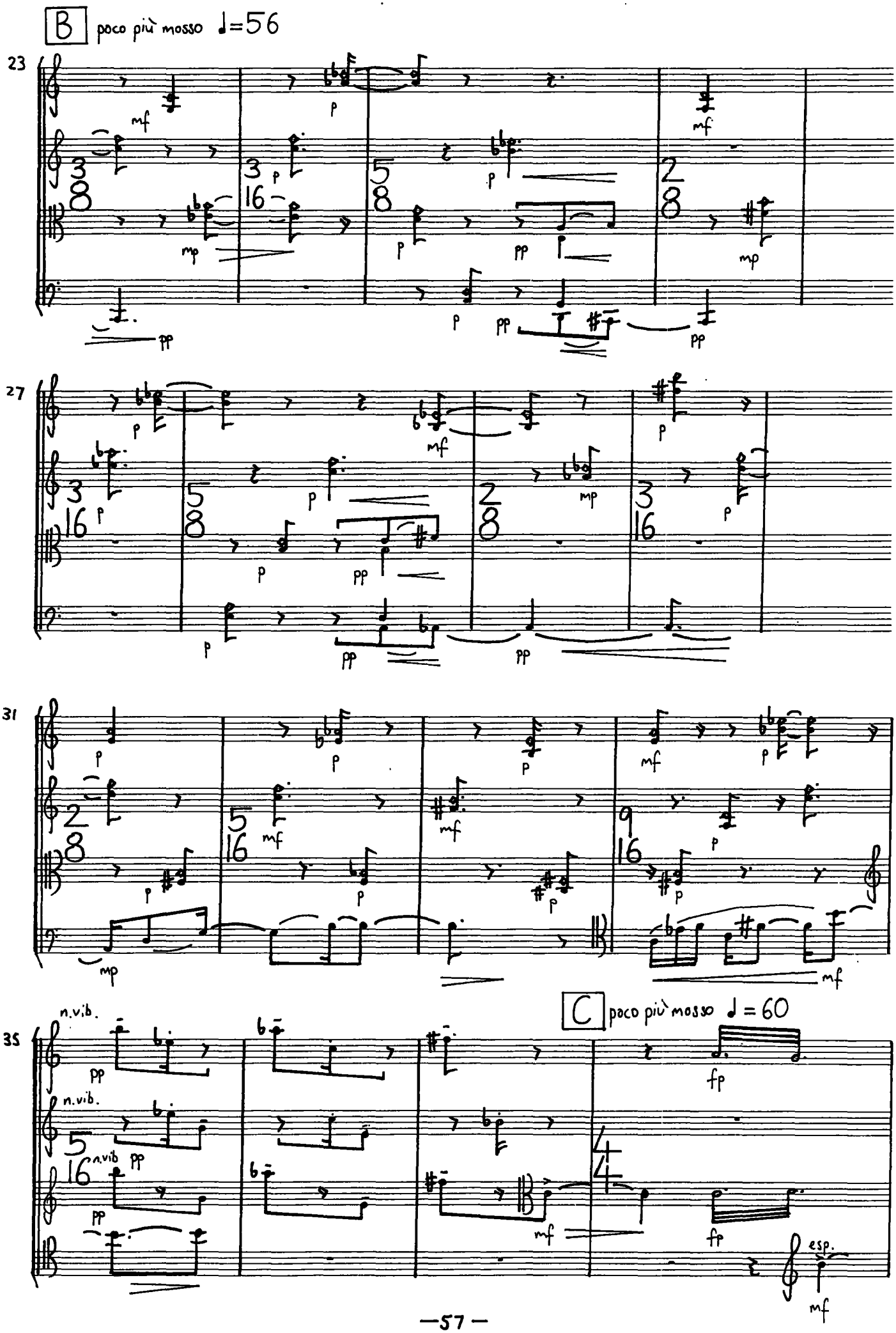

D4-4 PANOPUS SCORE-SYSTEM®
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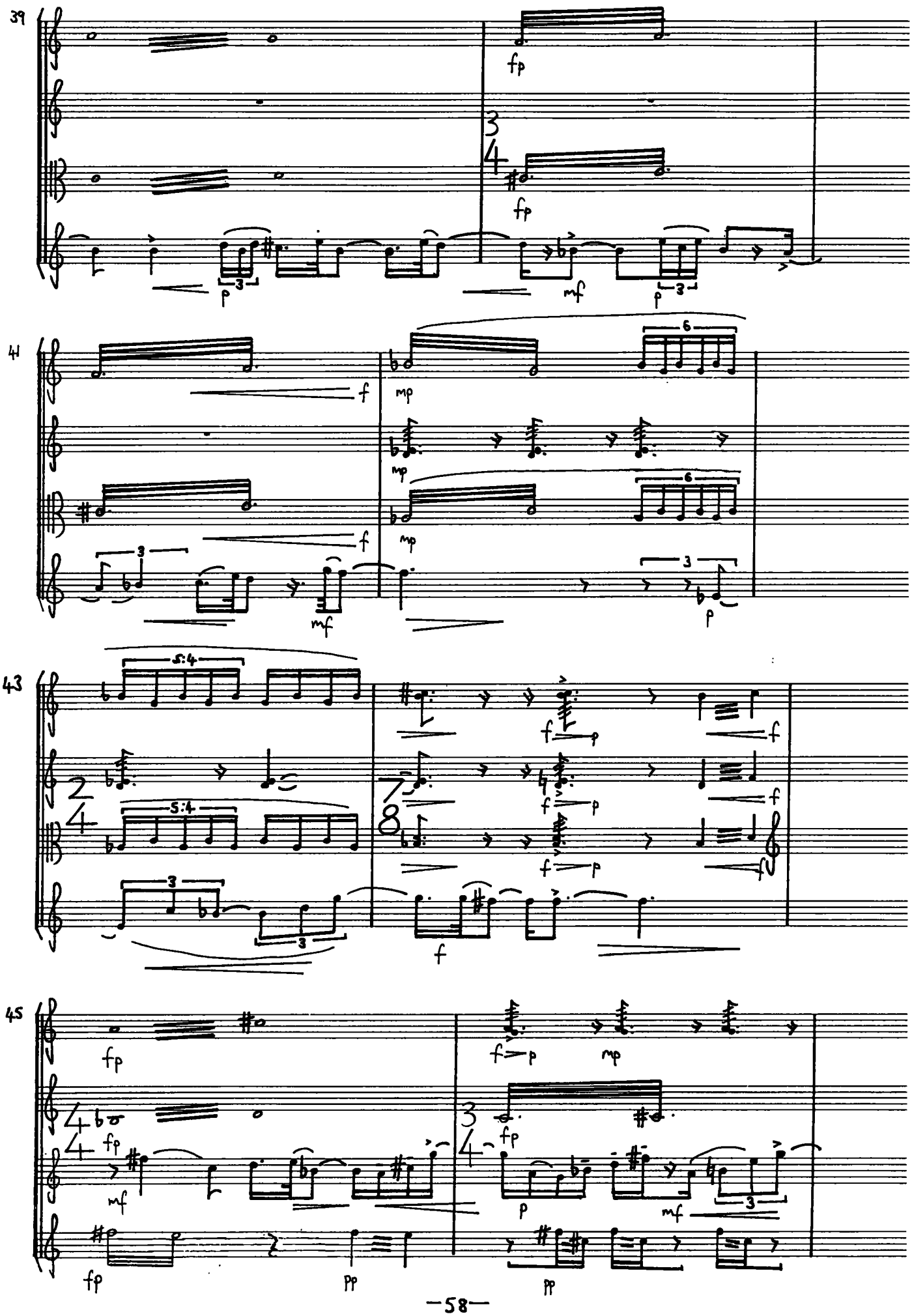

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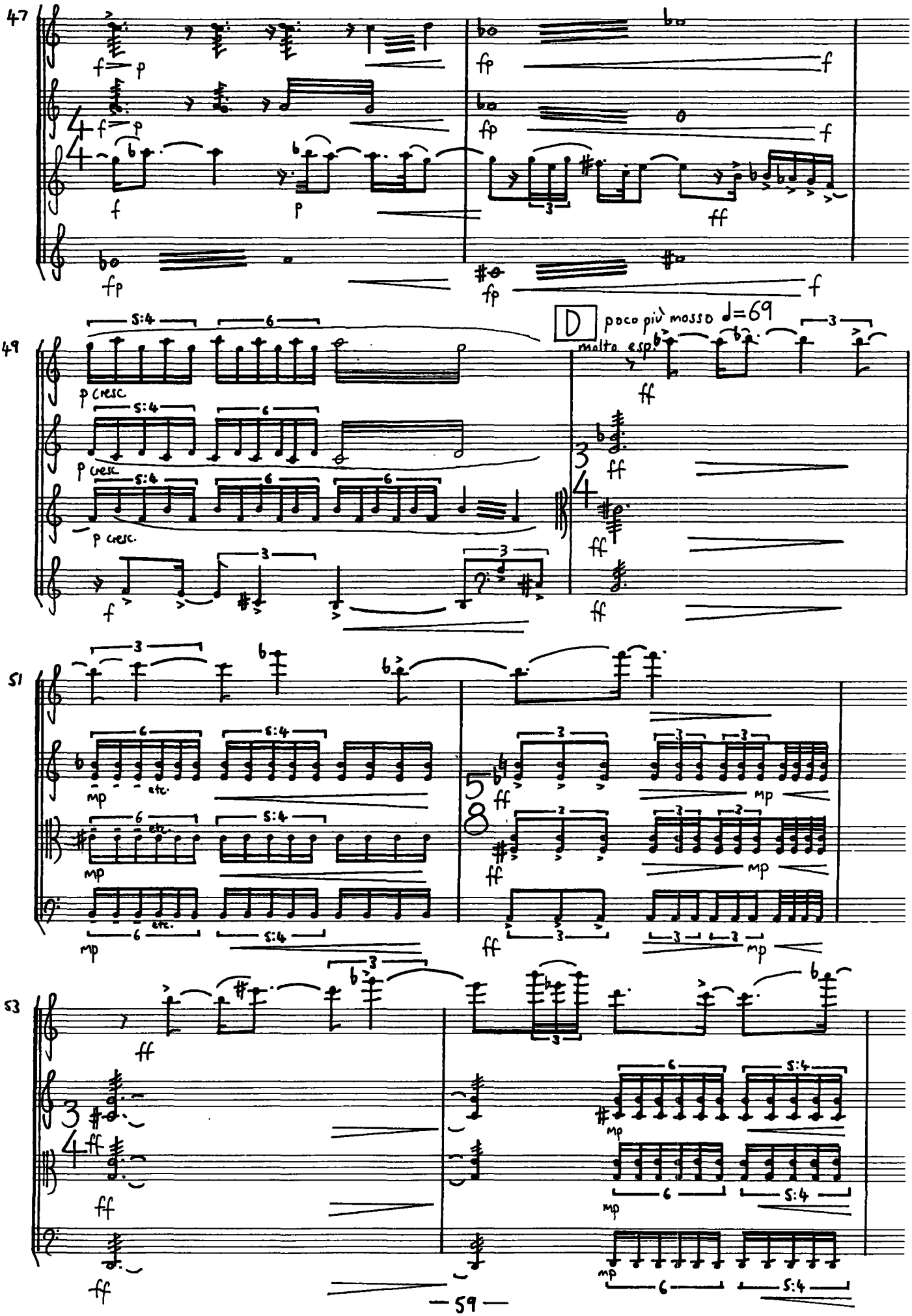

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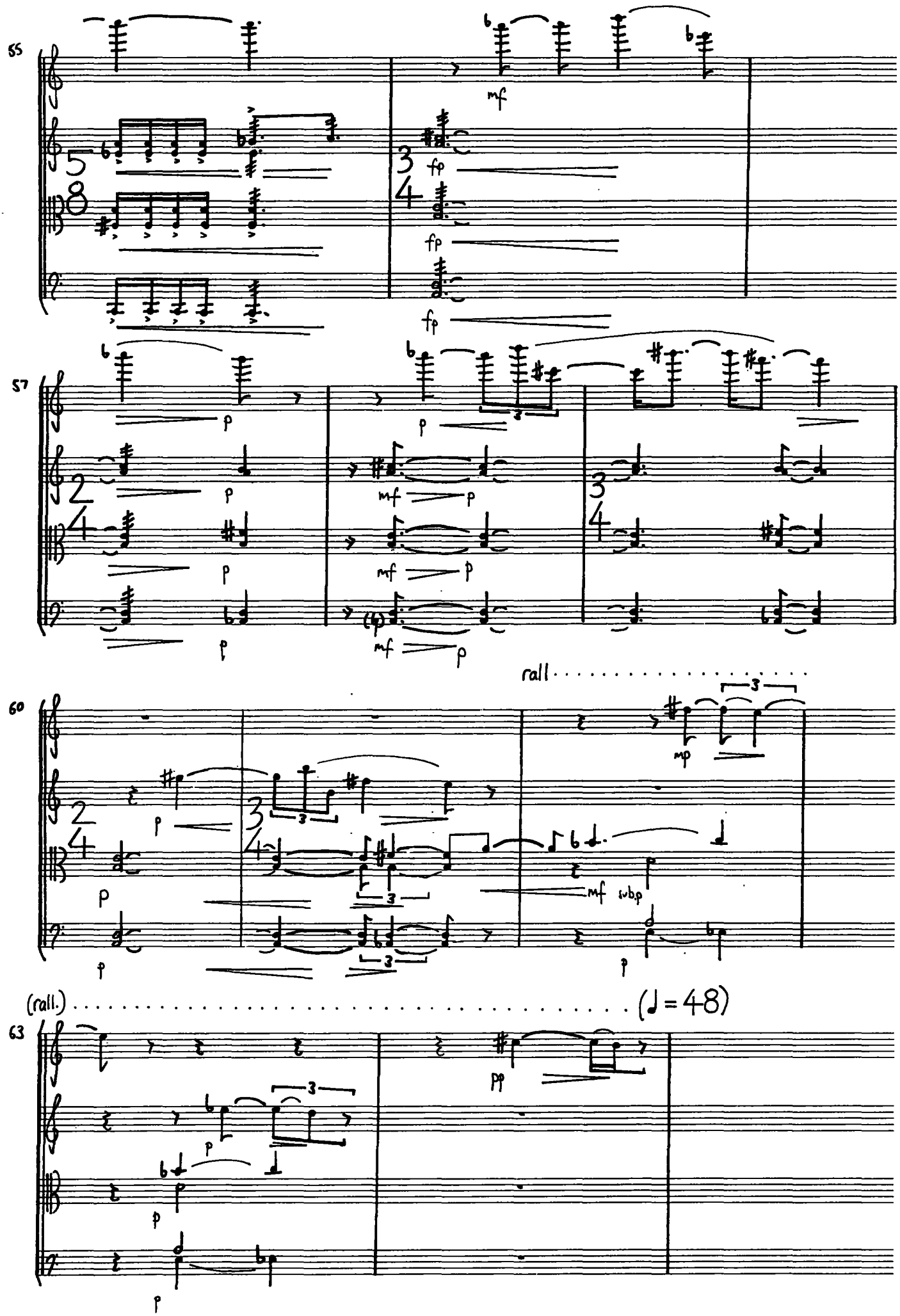

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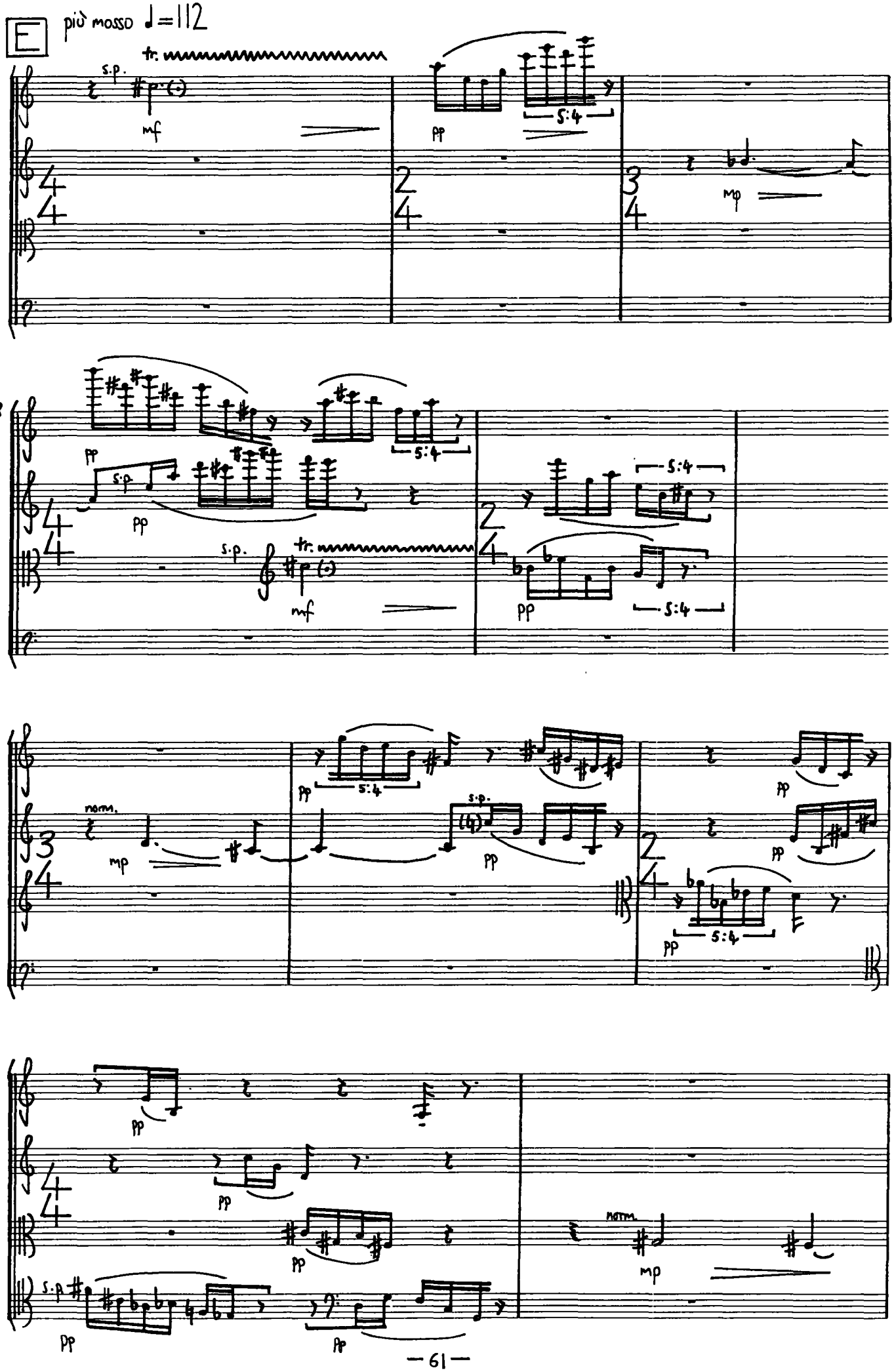

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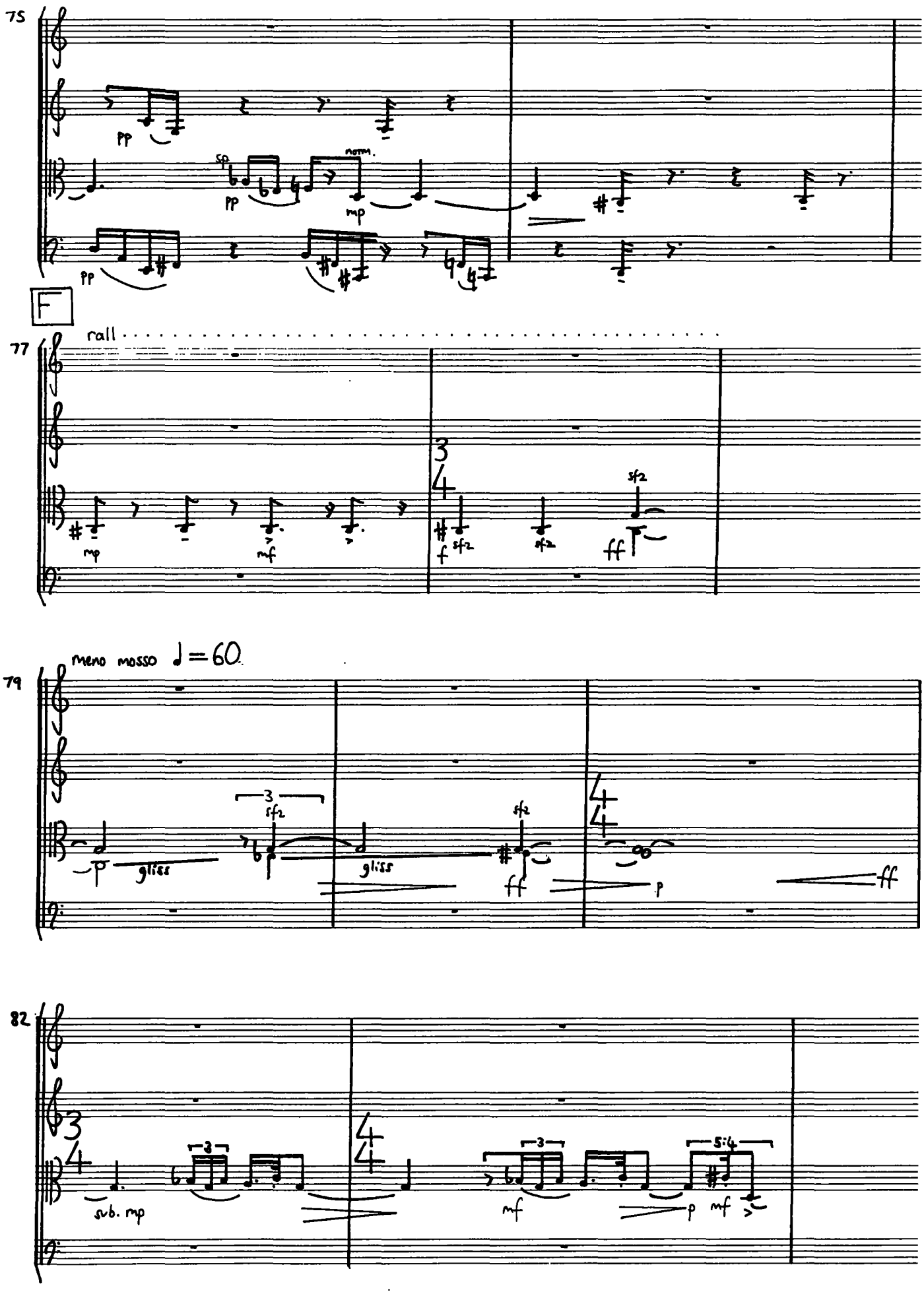

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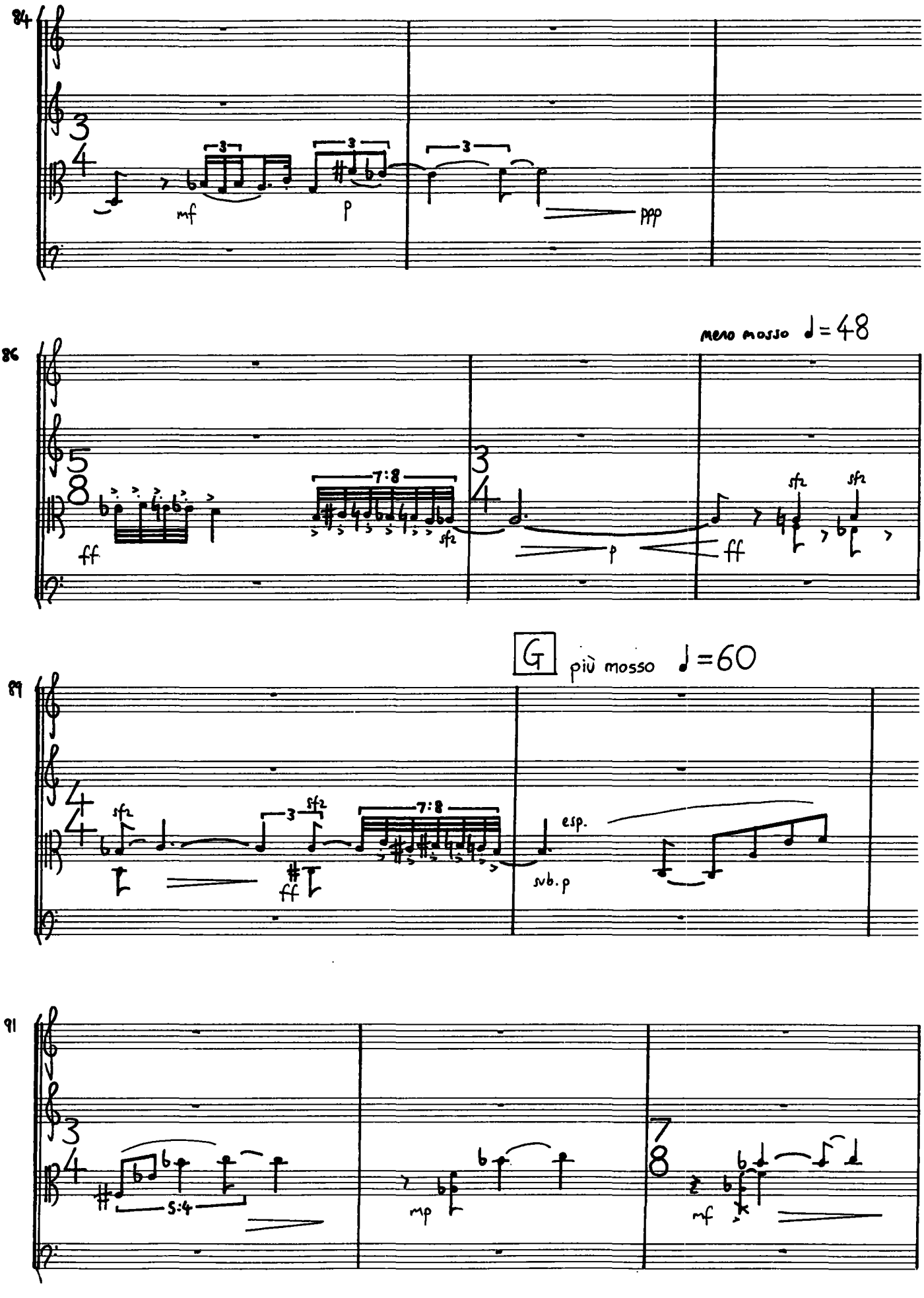

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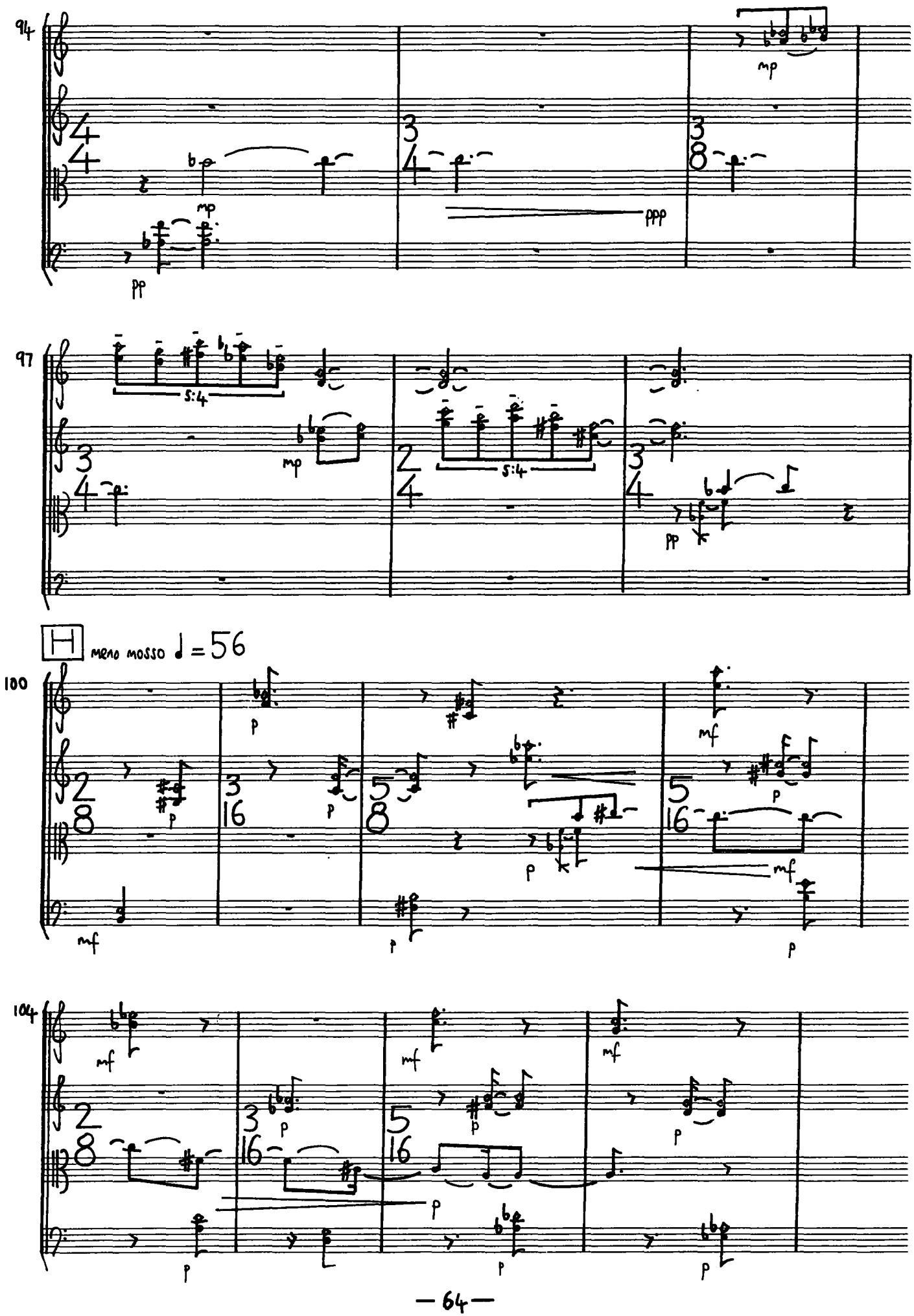

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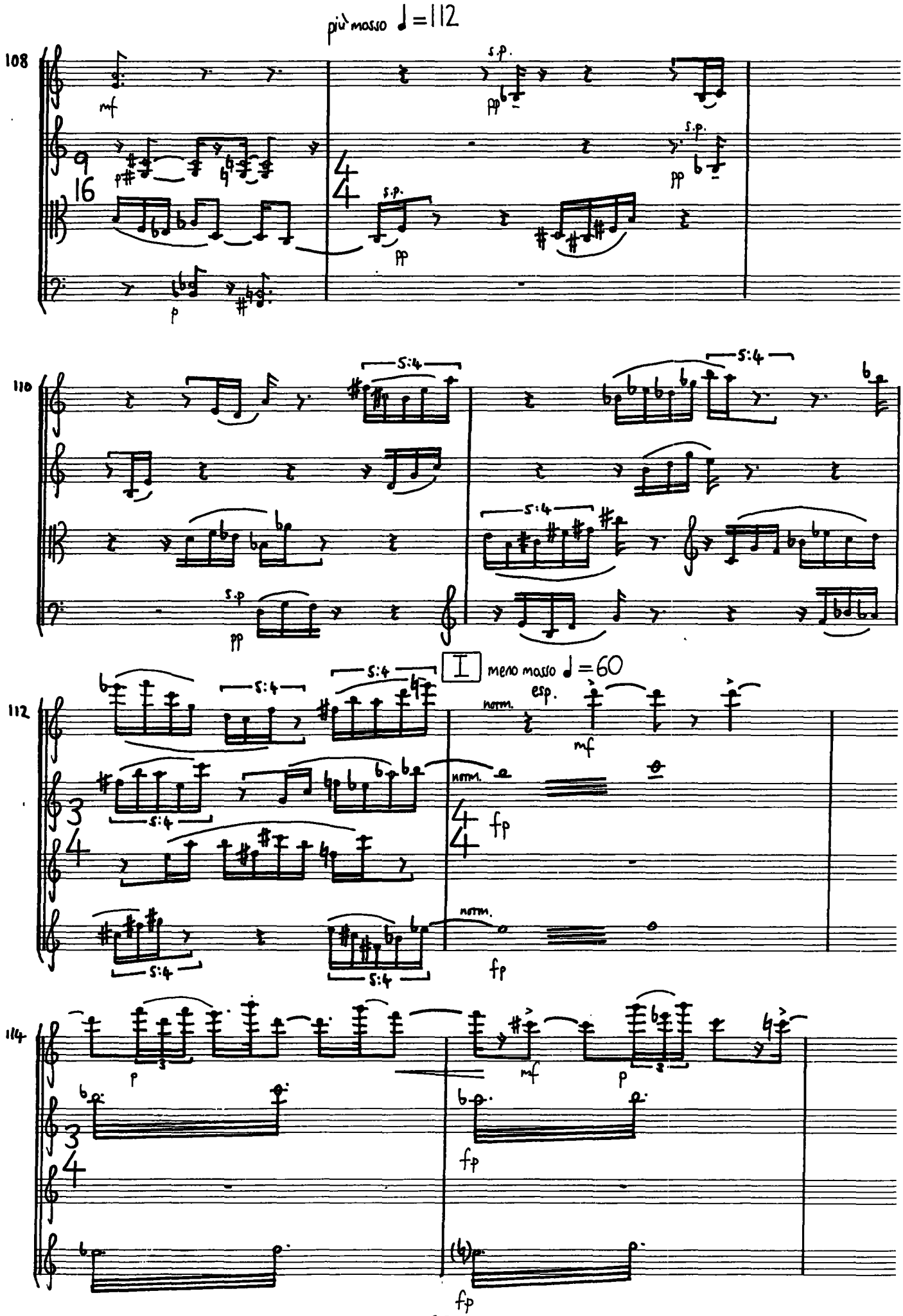

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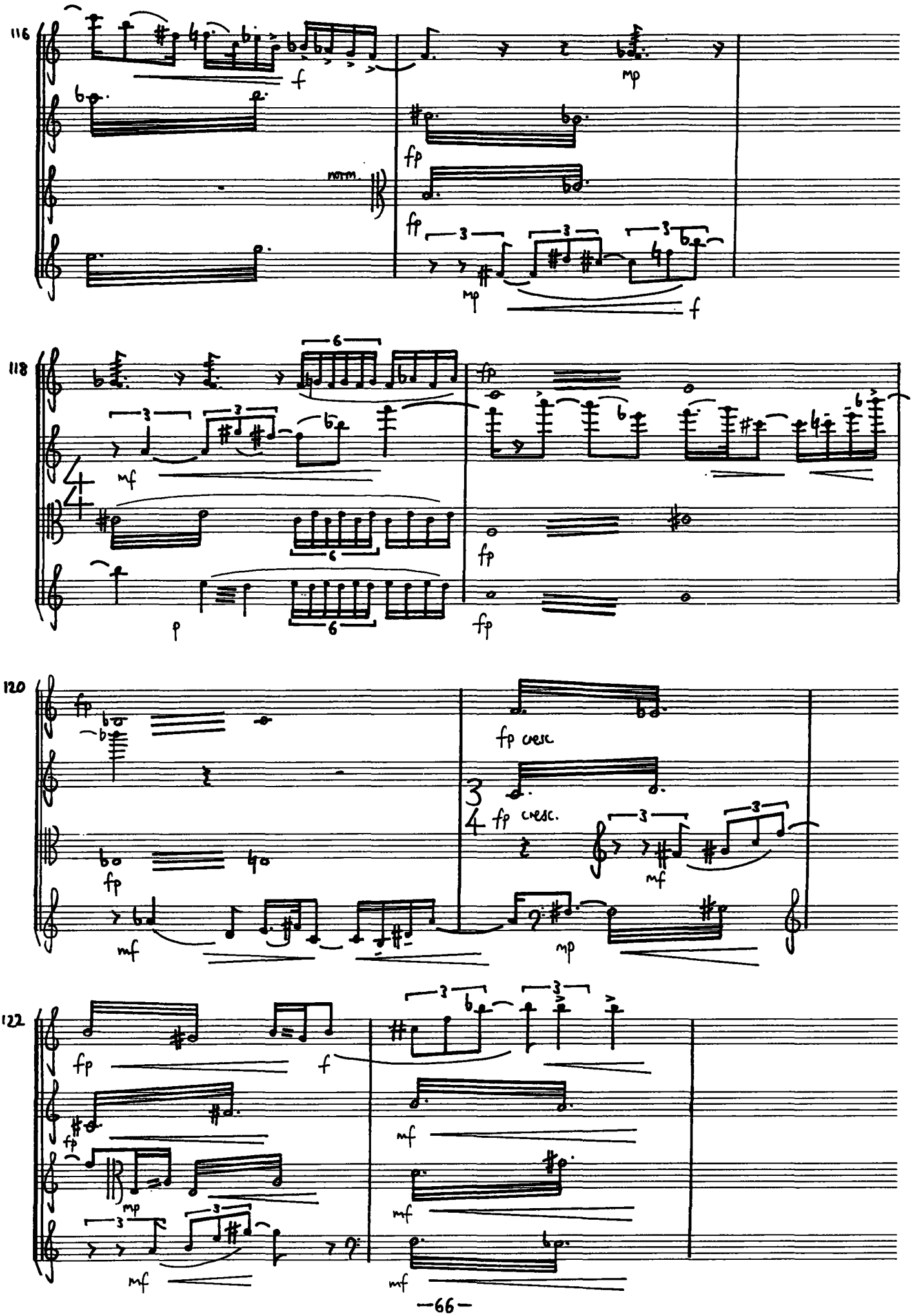

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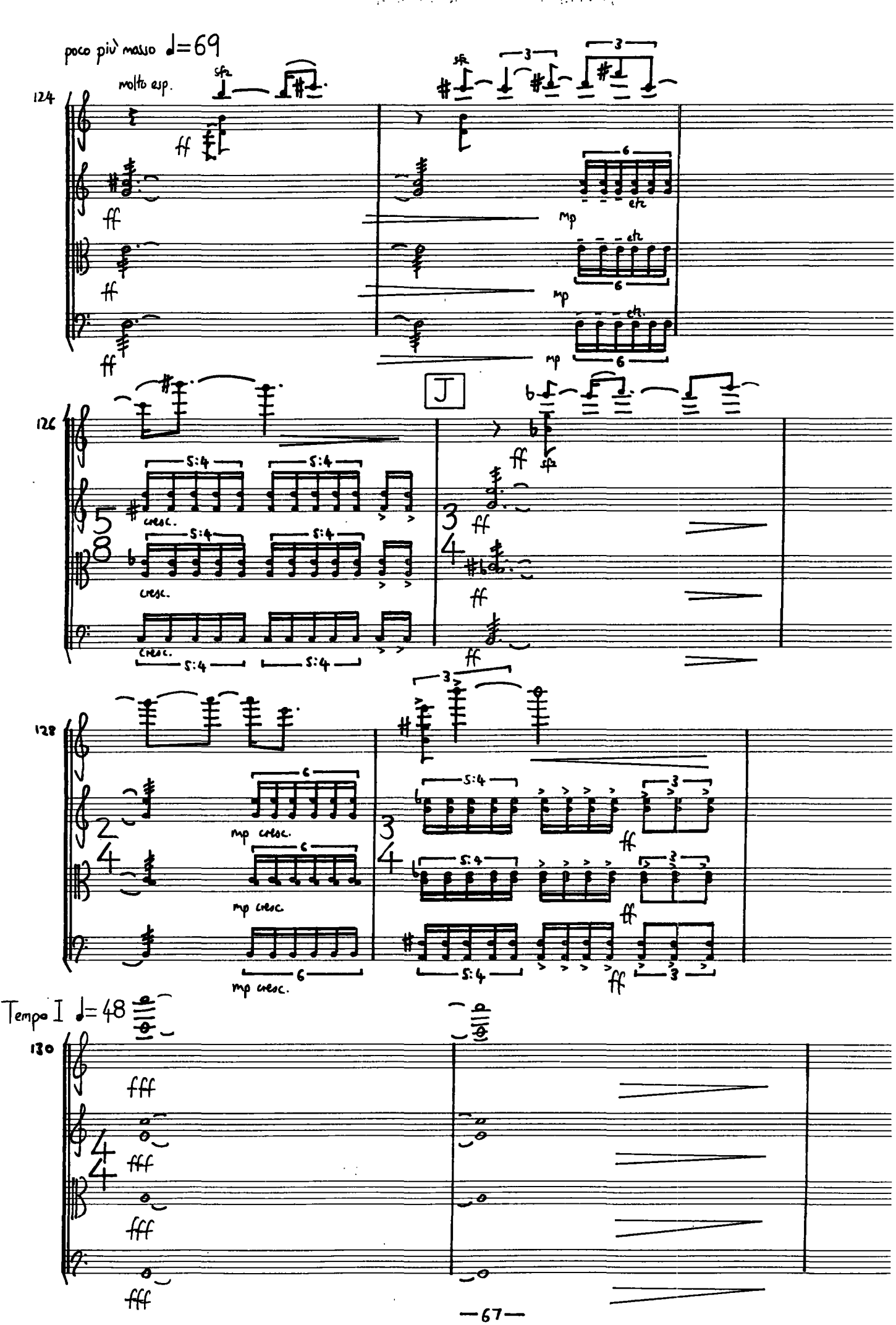
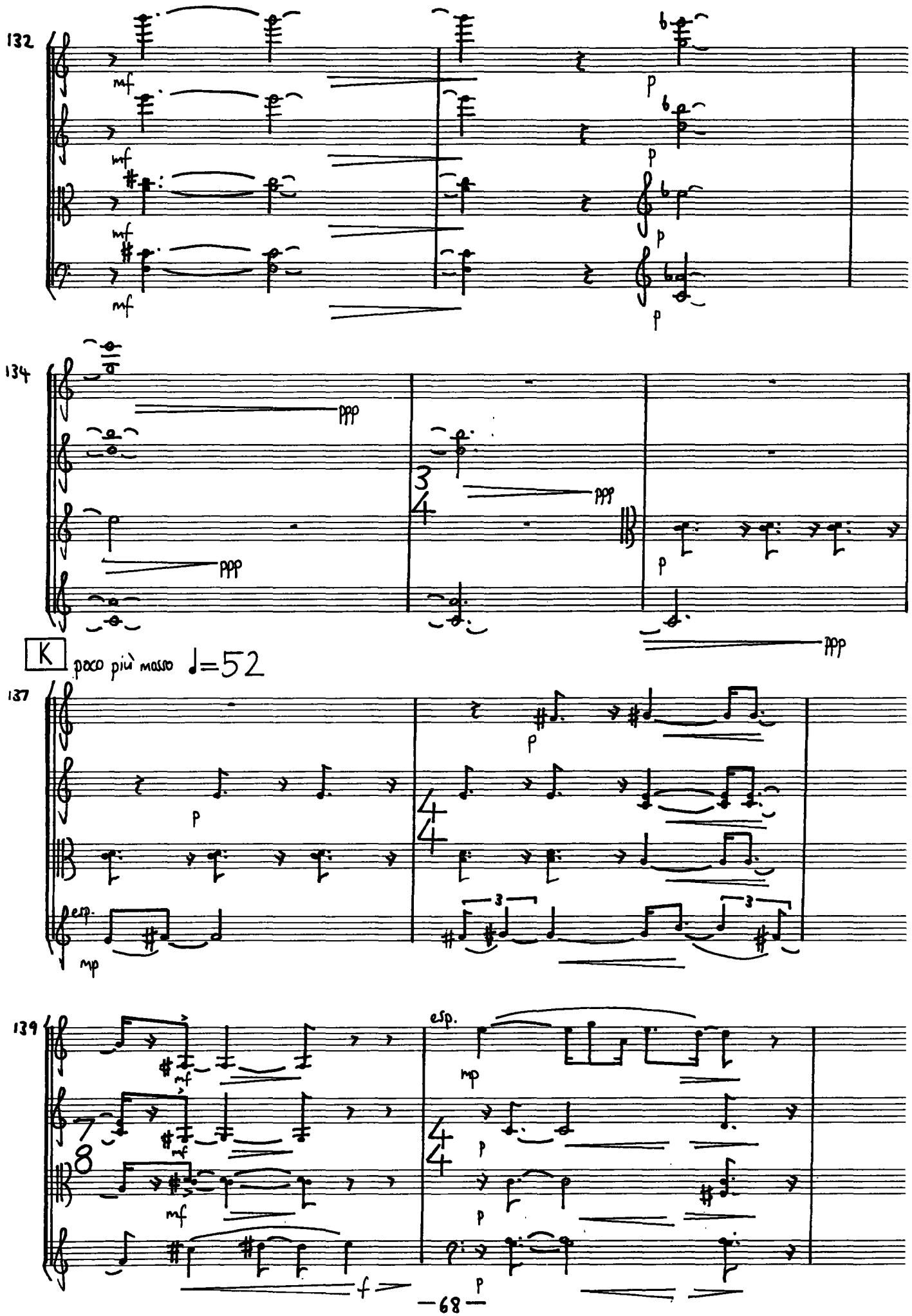
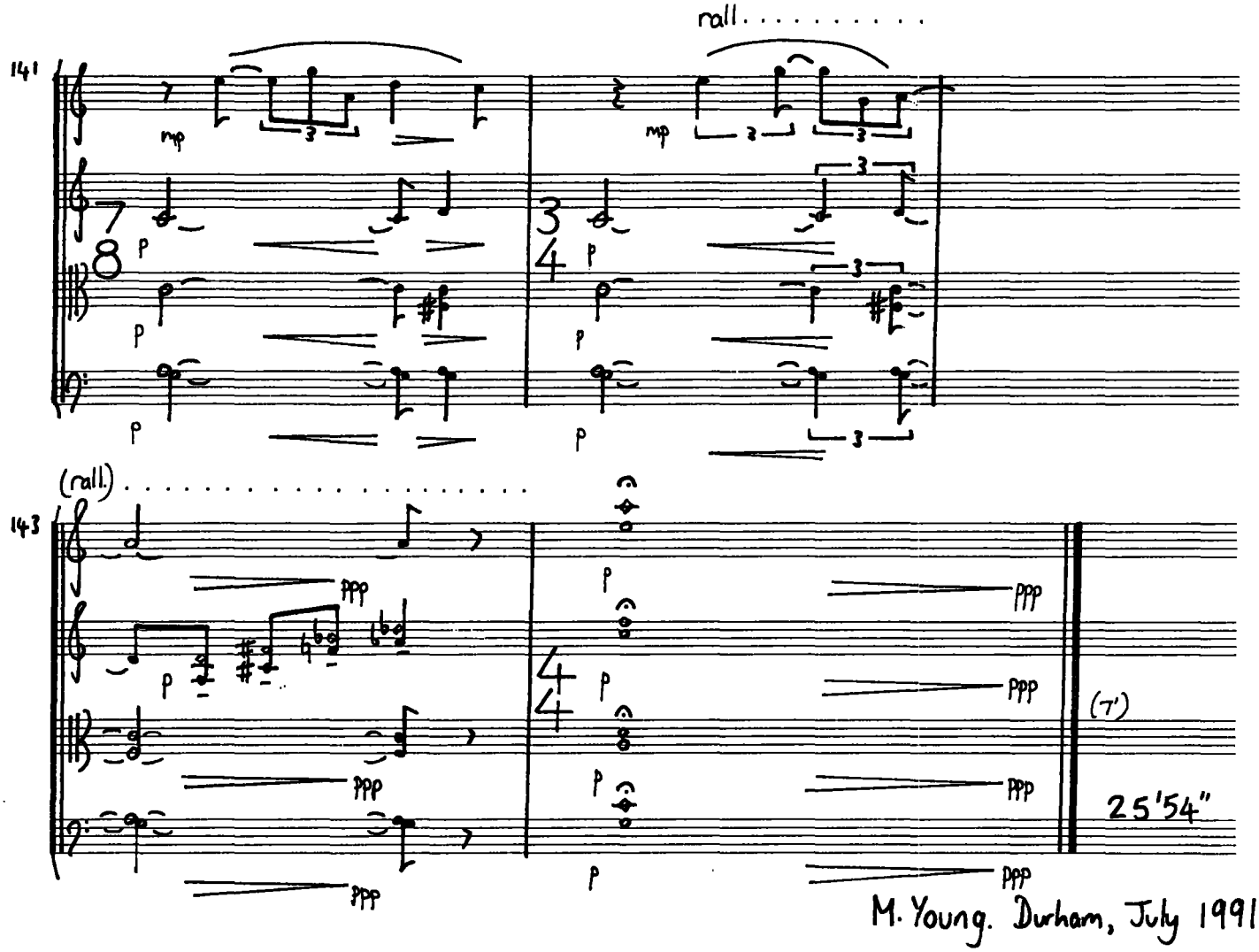


D4-4 PANOPUS SCORE-SYSTEM ©
Order Ref. No. 12720



DHP PANOPUS SCORE-SYSTEM©
Order Ref. No. 12720



PANOPUS SCORE-SYSTEM®
Order Ref. No. 12720

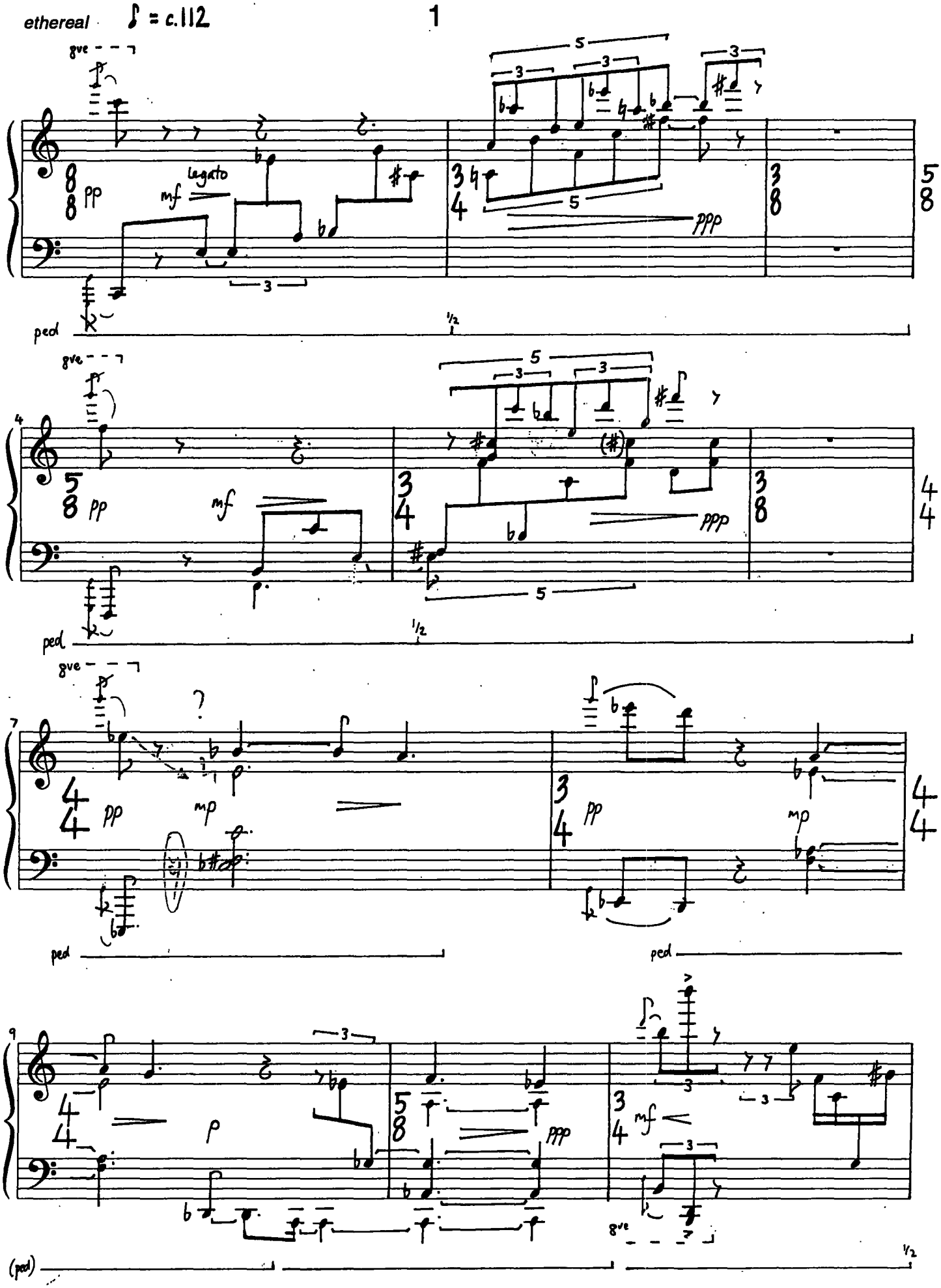
Two Nocturnes

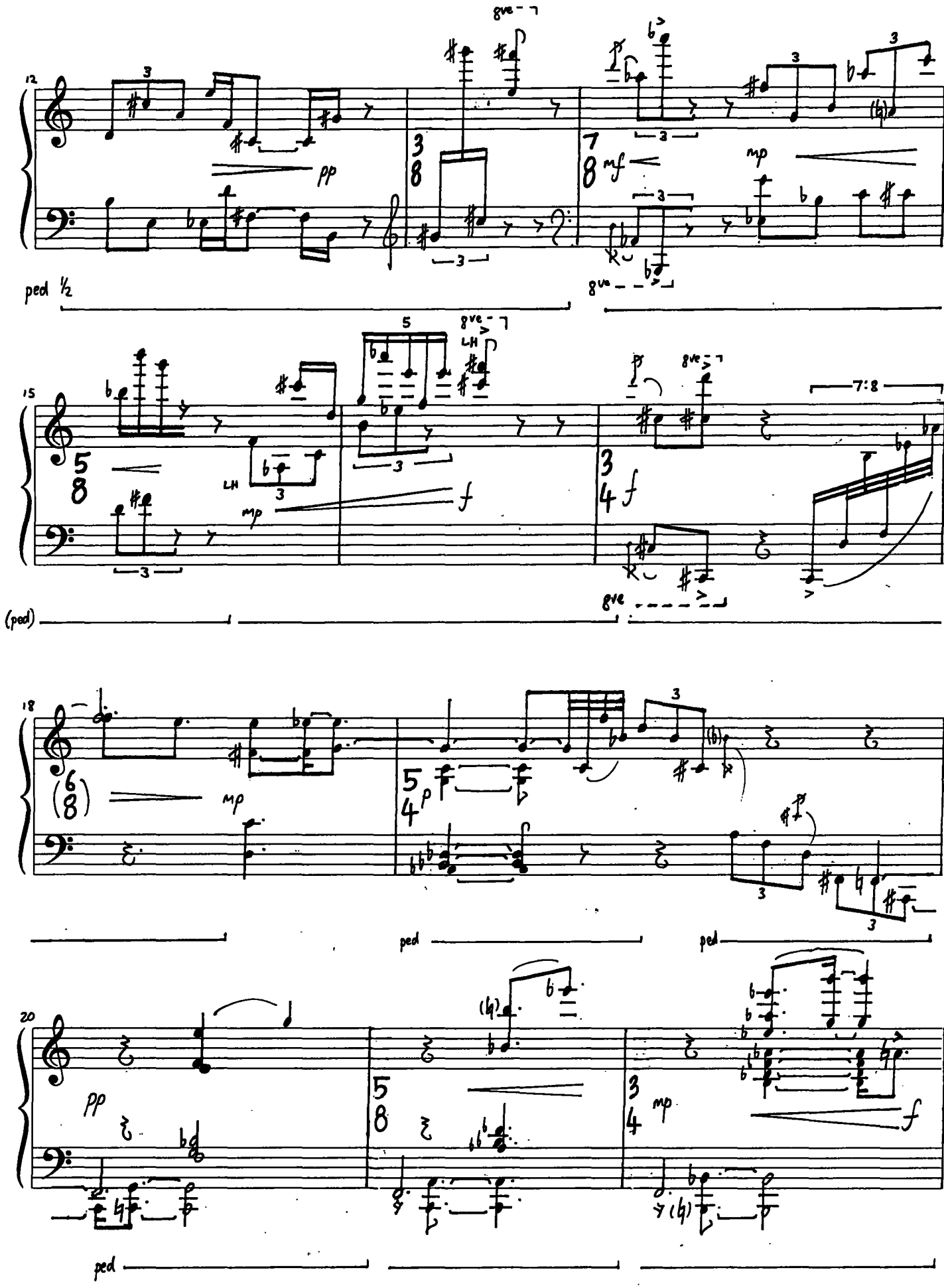
Michael Young

Two Nocturnes

Michael Young

1




12
pp
mf
mp
ped ½
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15
LH
mp
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7:8
(ped)
18
mp
p
ped
20
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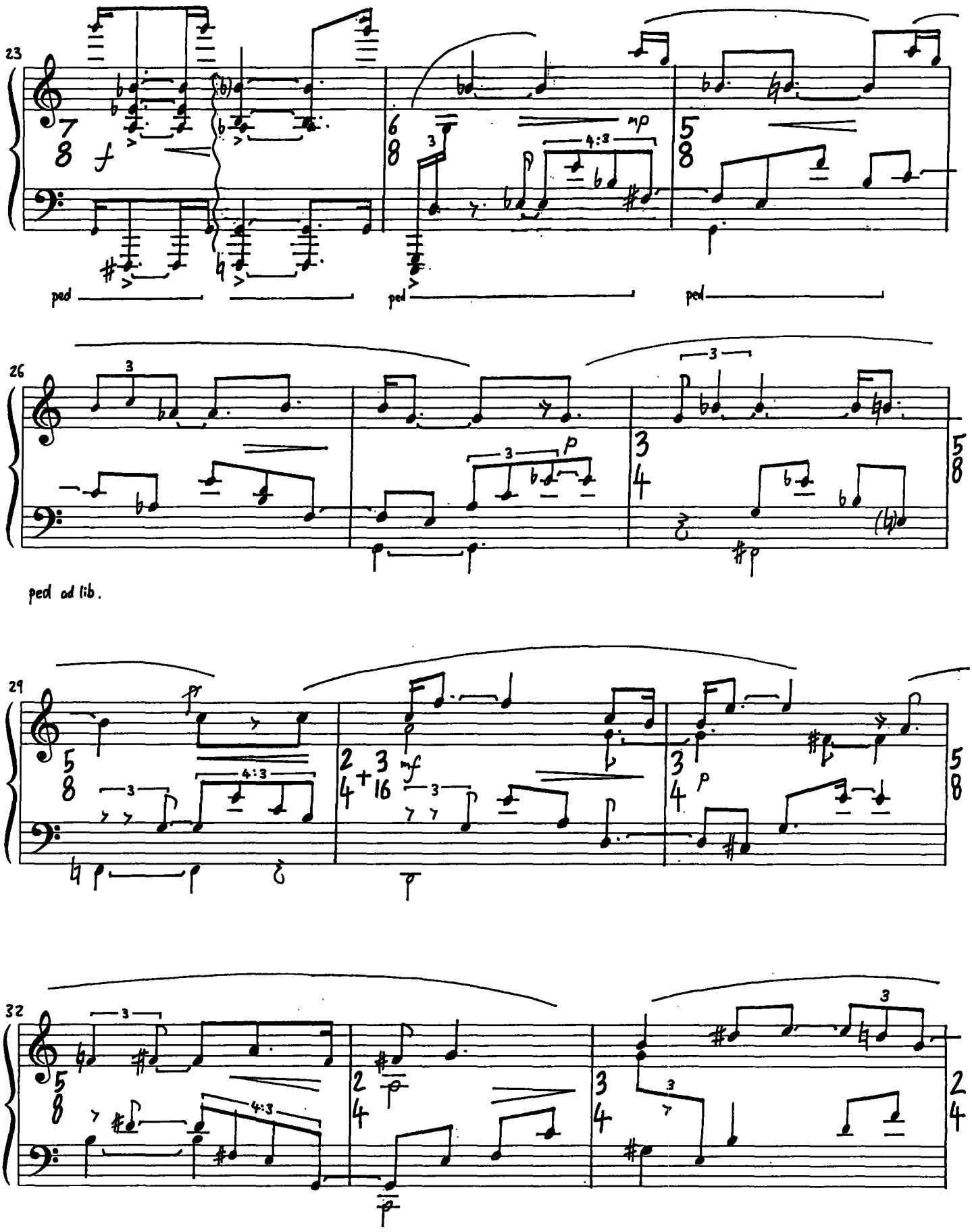
ped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4:3
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ped
ped
26
3
p
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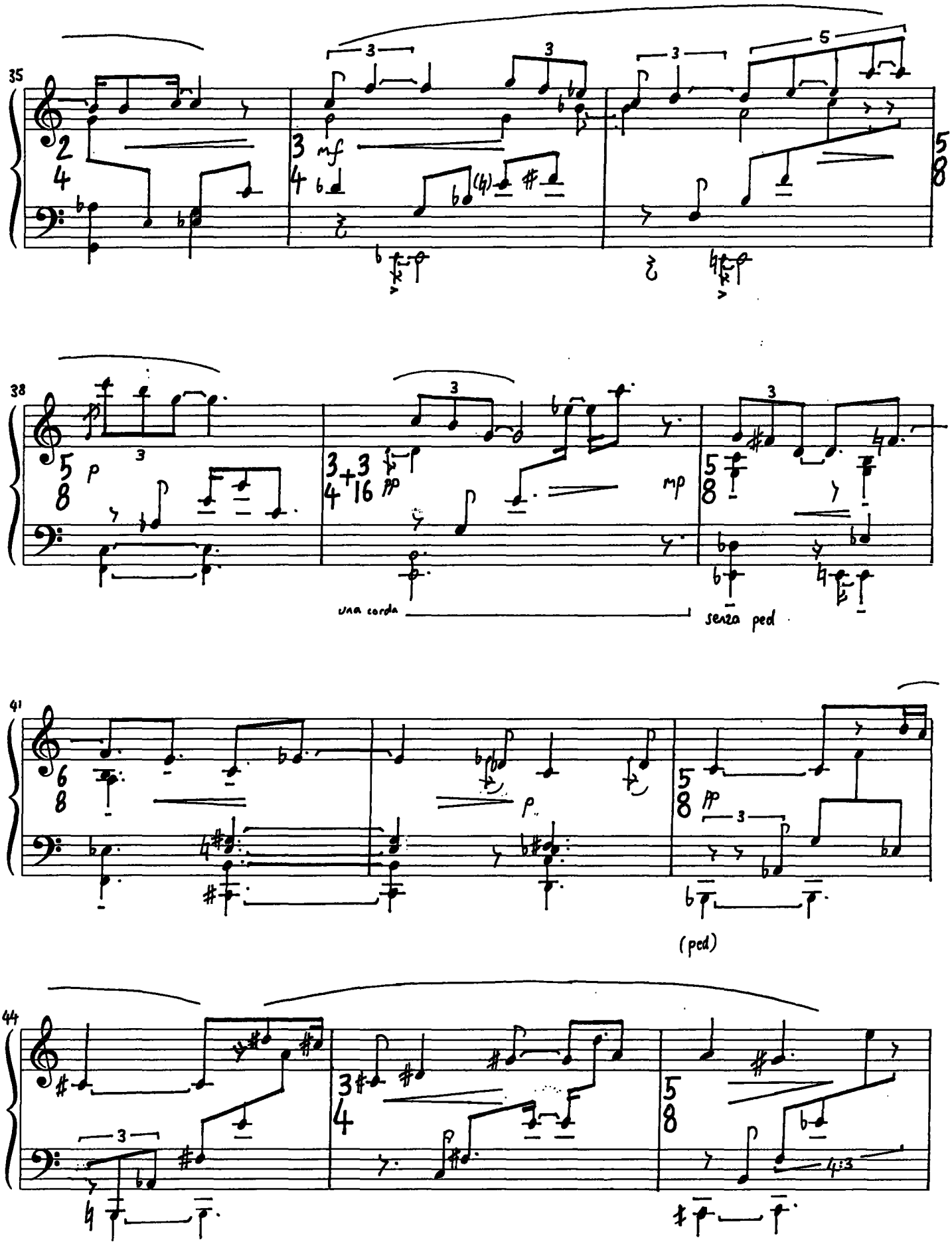
29
mf
4:3
p
32
4:3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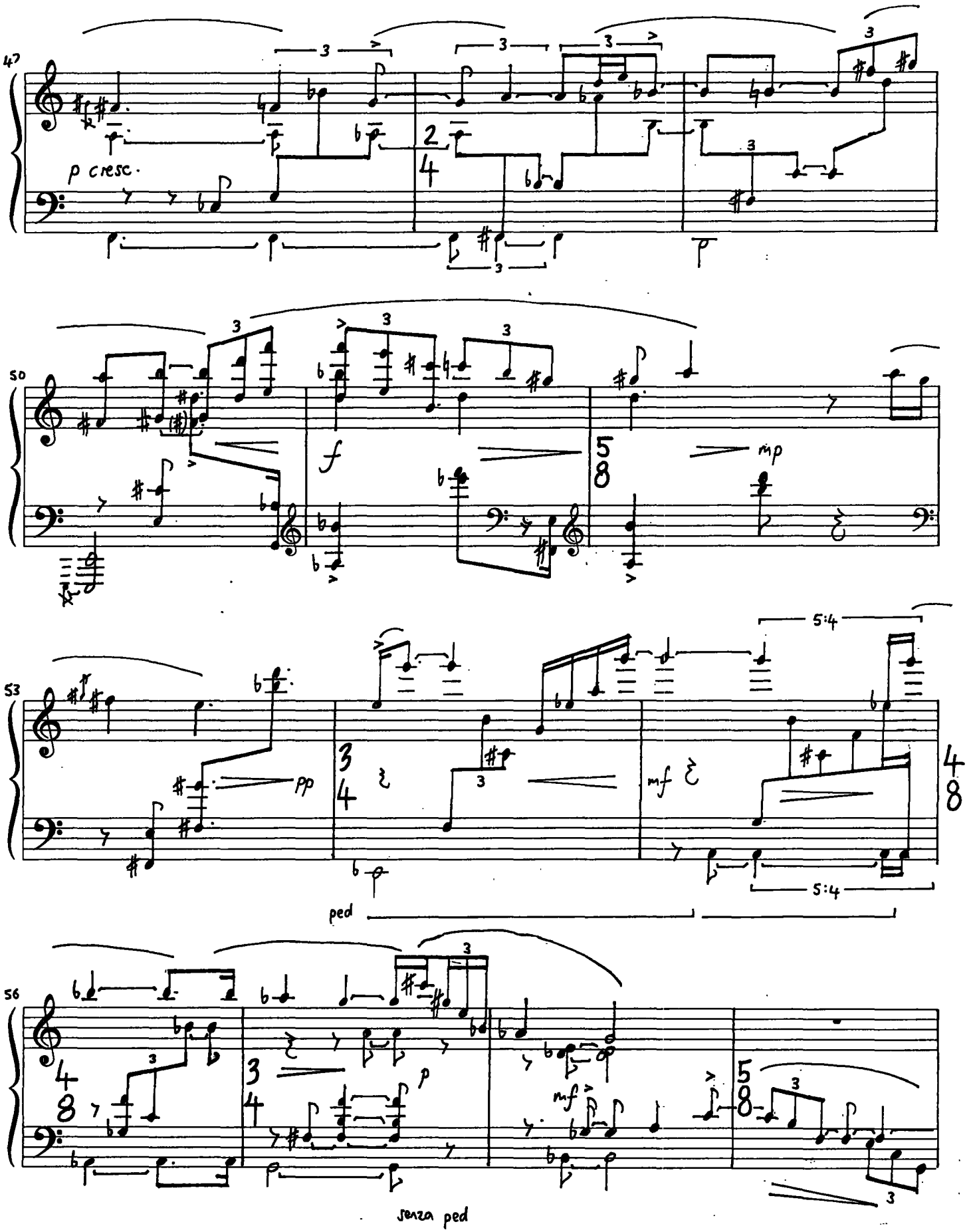
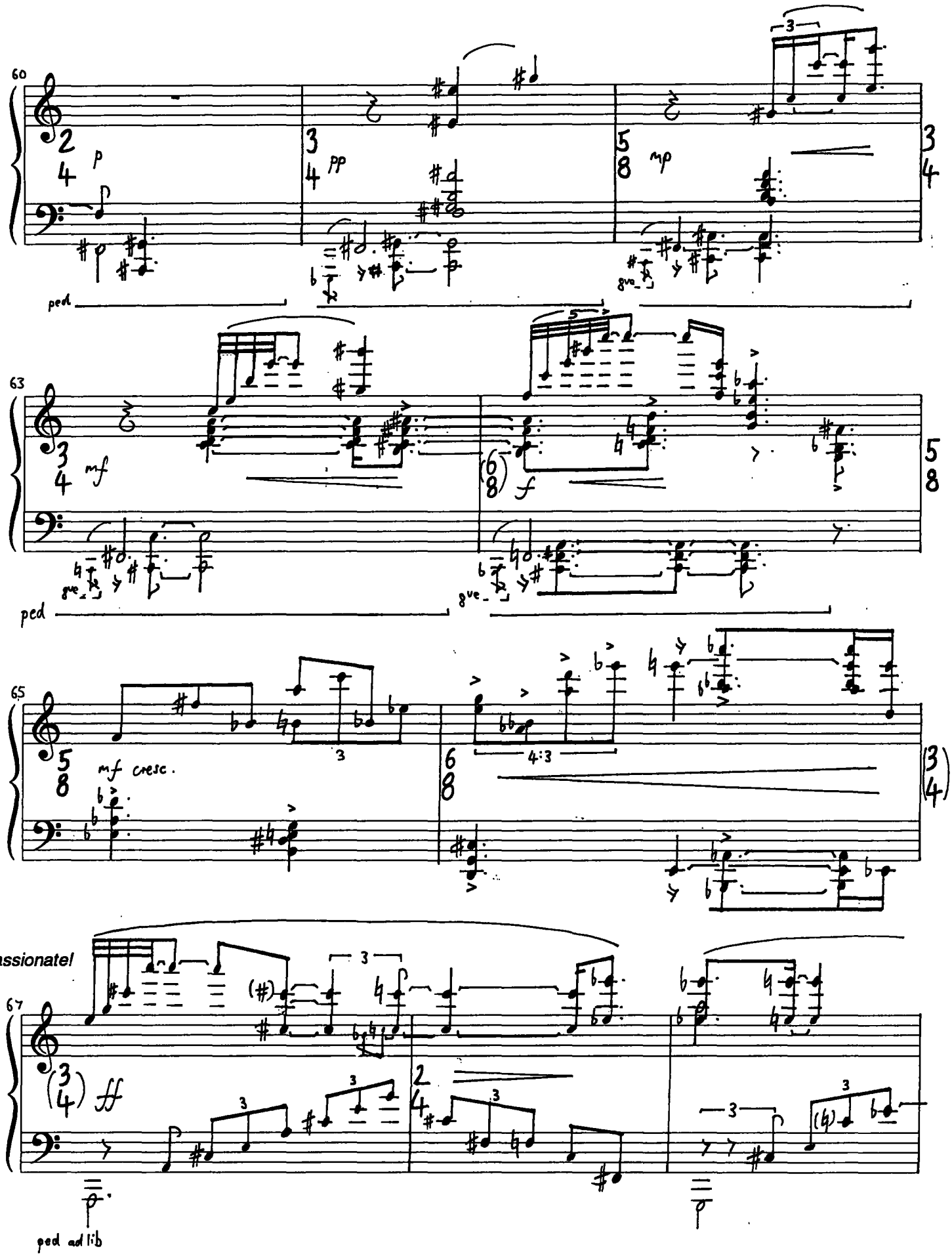
mf
38
p
mp
una corda
senza ped
41
pp
(ped)
44


47
p cresc.
50
f
mp
53
pp
mf
5:4
5:4
ped
56
p
mf
senza ped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p
pp
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ped
63
mf
f
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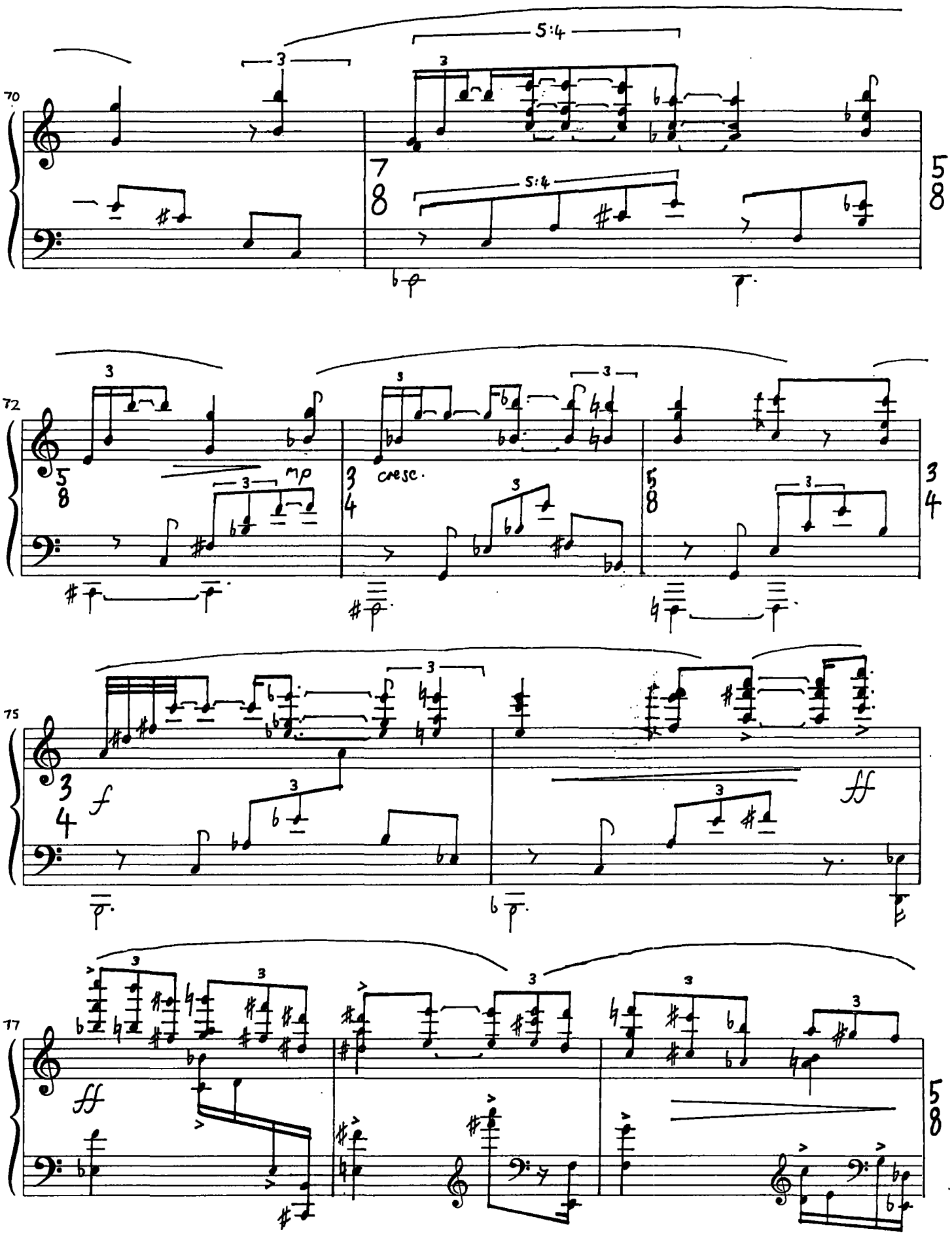
mf cresc.
4:3
passionate!
67
ff
p
ped ad lib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3/4
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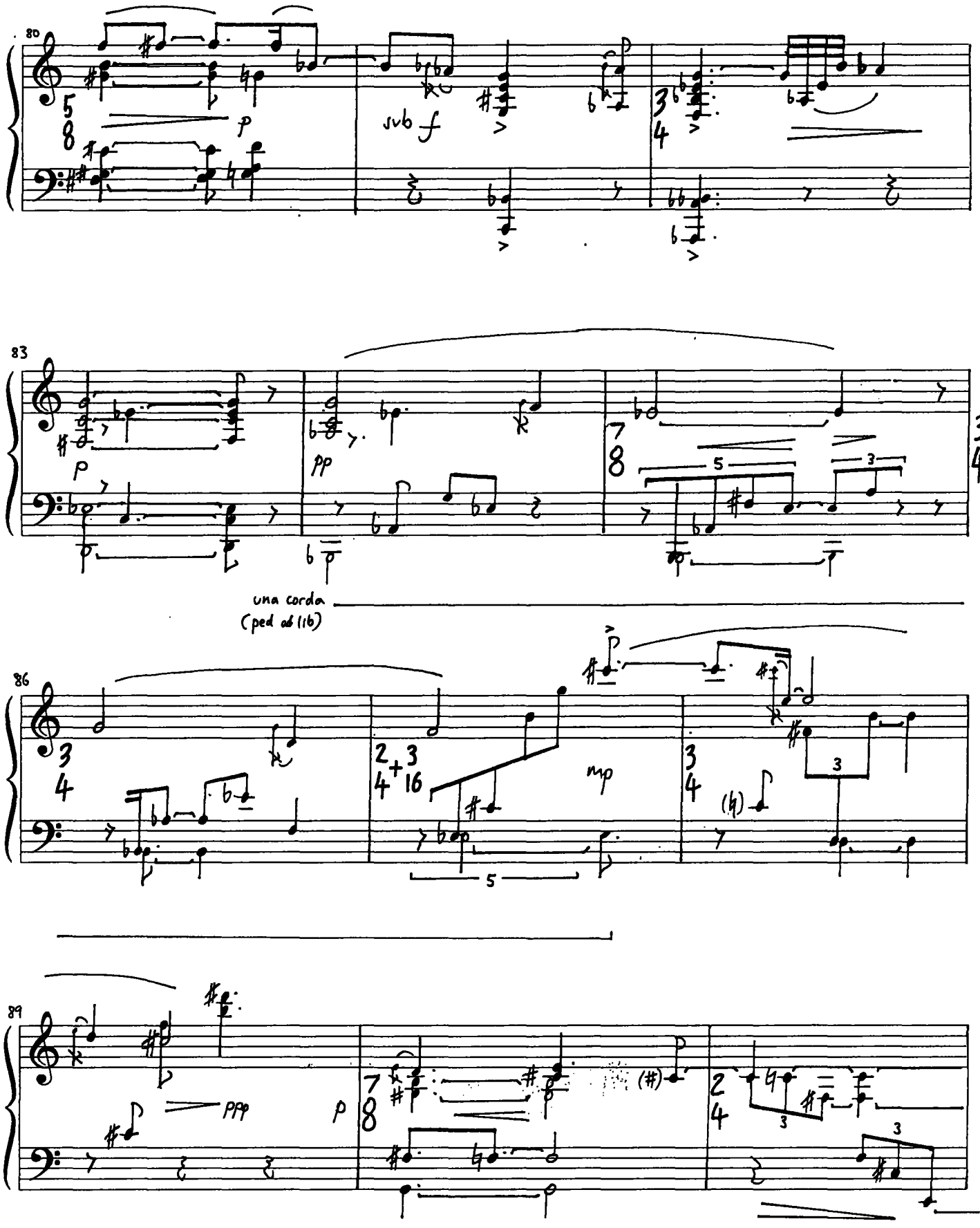
ff
77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p
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(ped ad lib)
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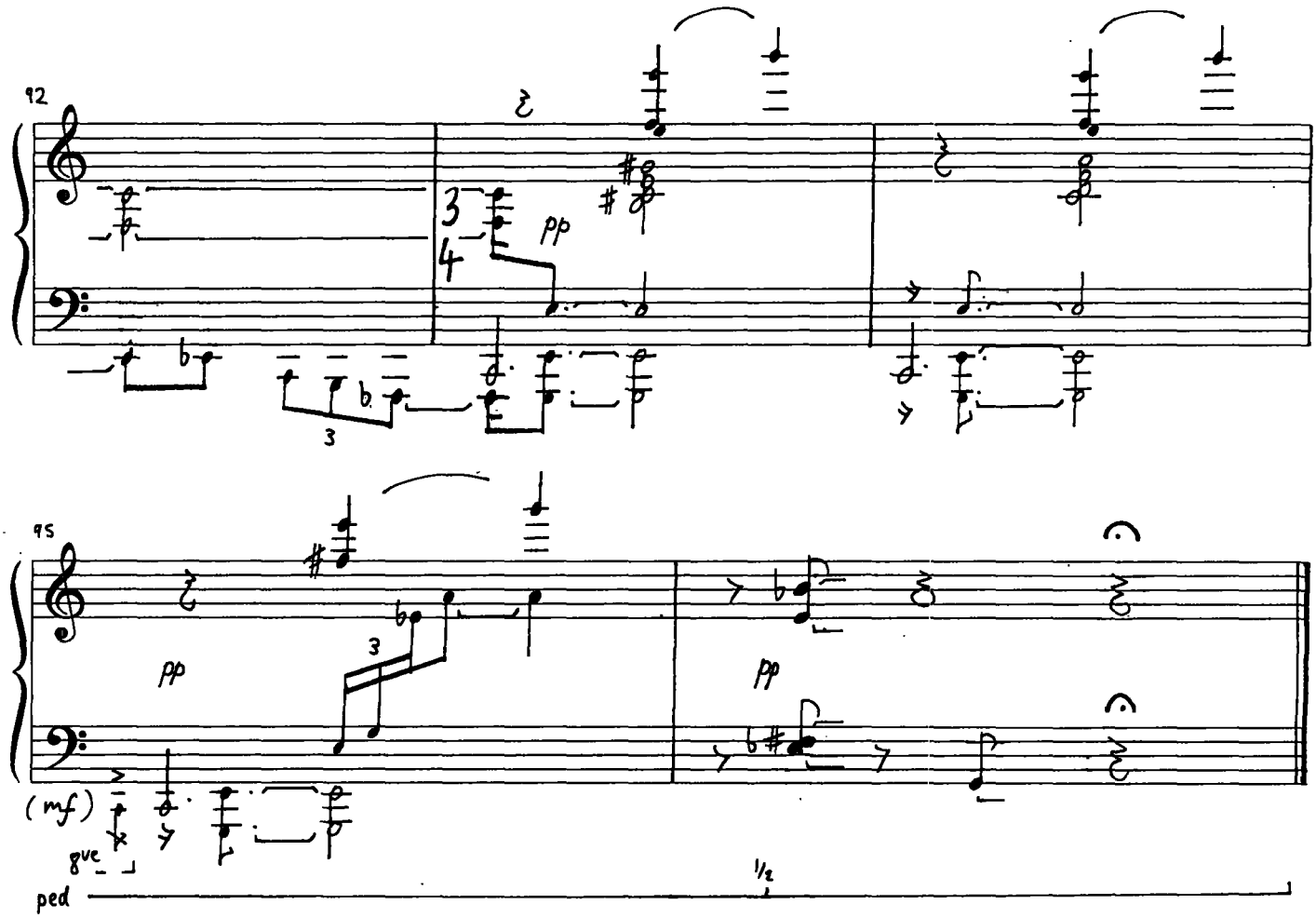
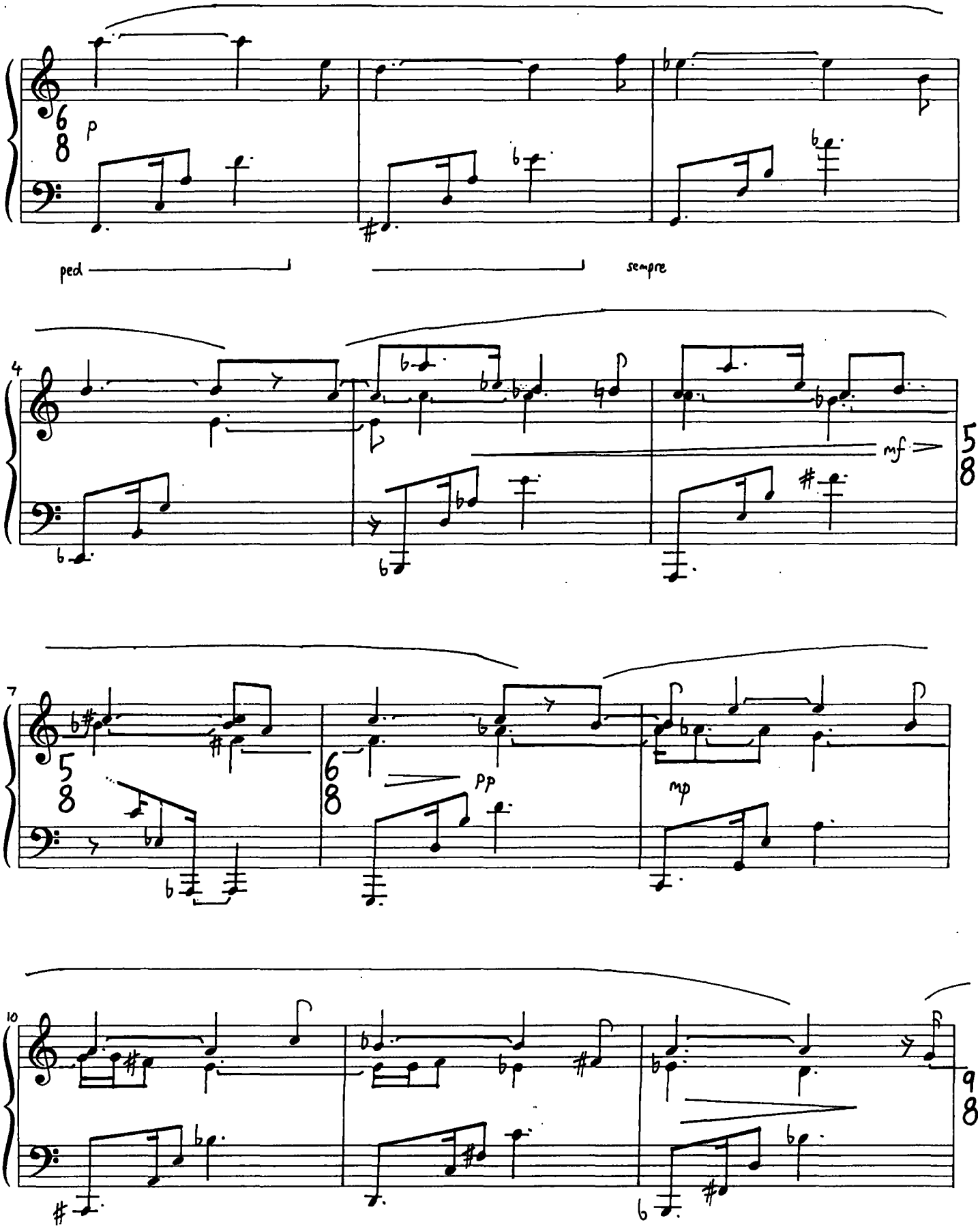
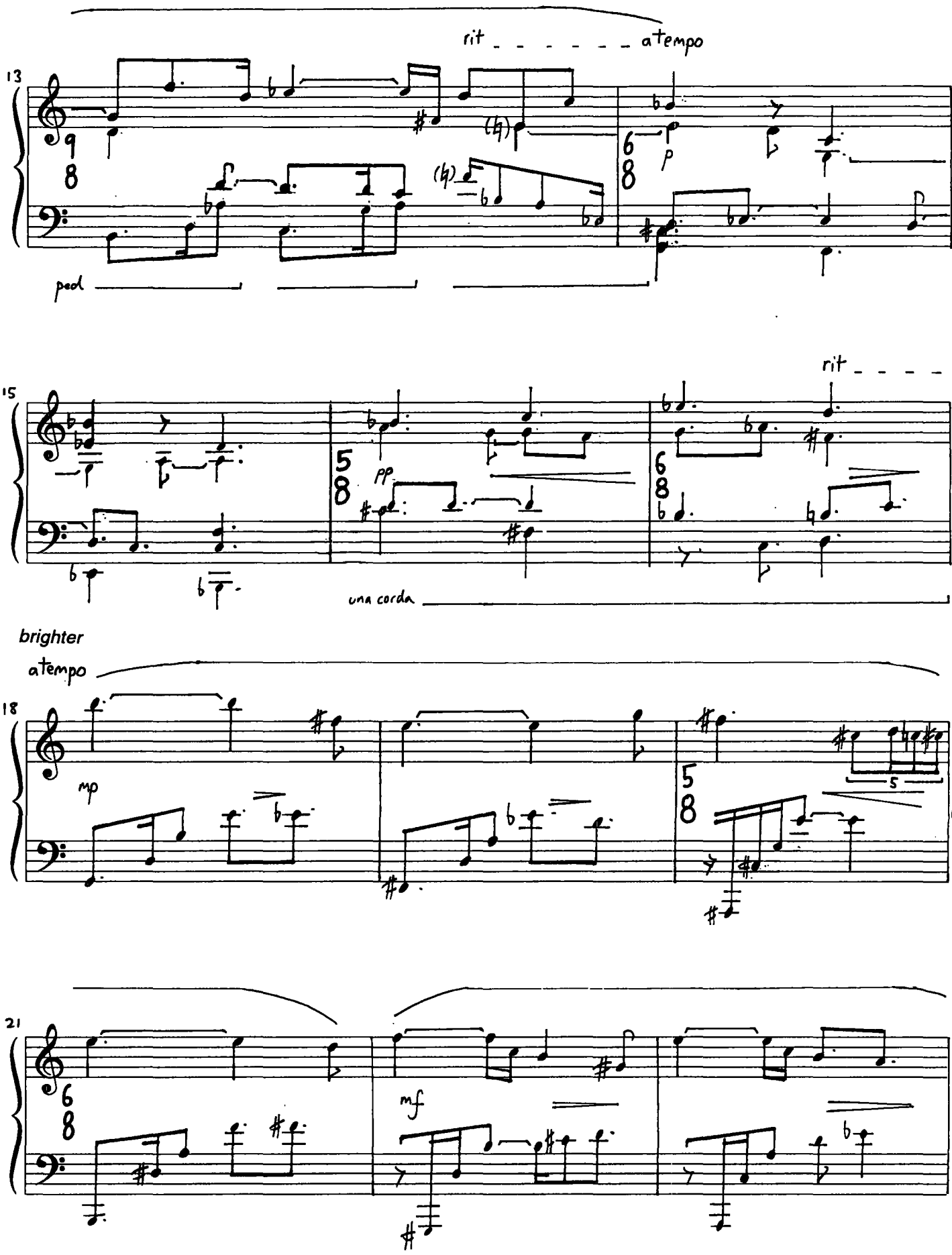
89
ppp
p


92
pp
95
pp
pp
(mf)
8va
ped
1/2

distantly, rather melancholic ♪=c.126

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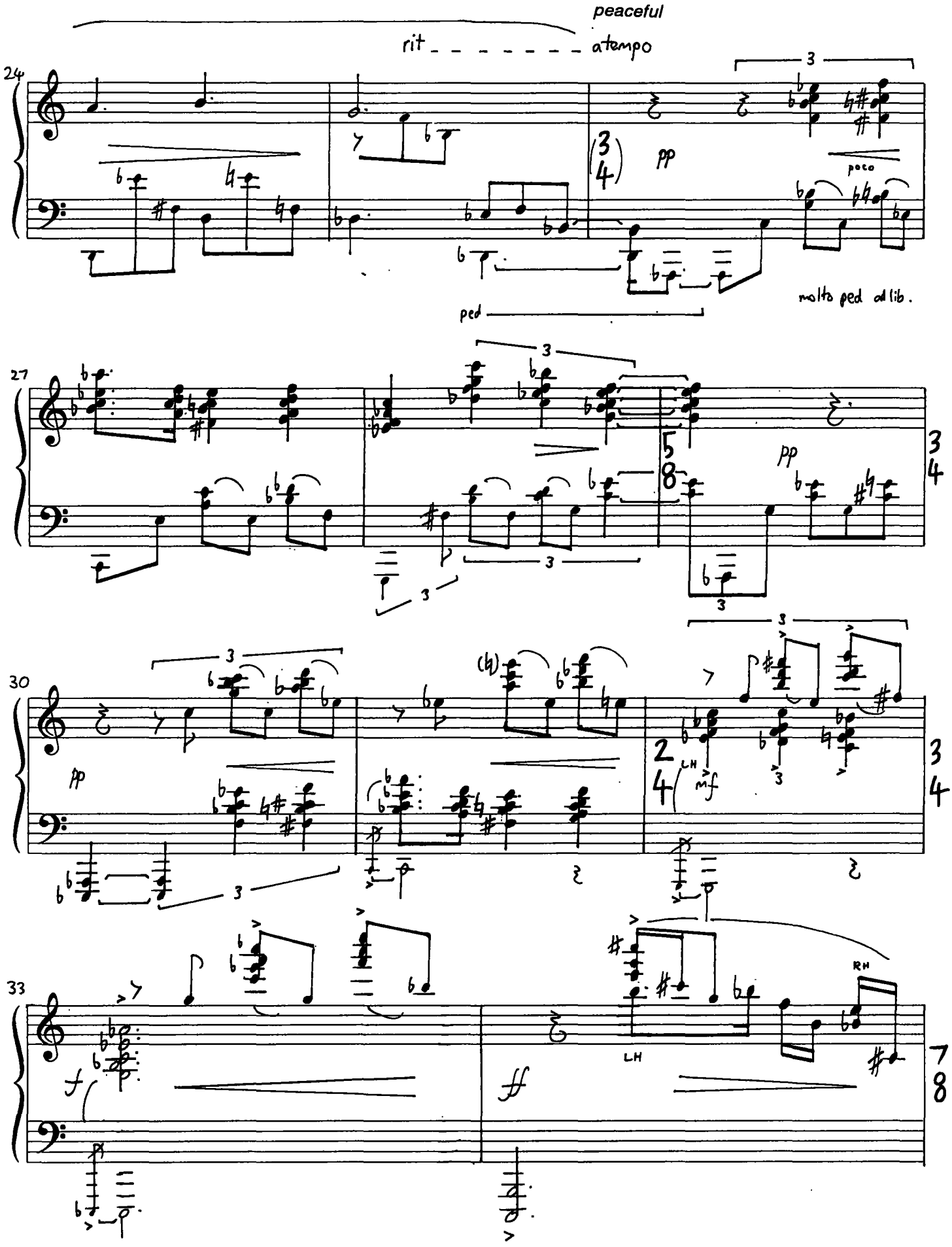
a tempo
13
p
ped
15
pp
rit
una corda
brighter
a tempo
18
mp
21
mf


peaceful
rit
atempo
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poco
molto ped ad lib.
ped
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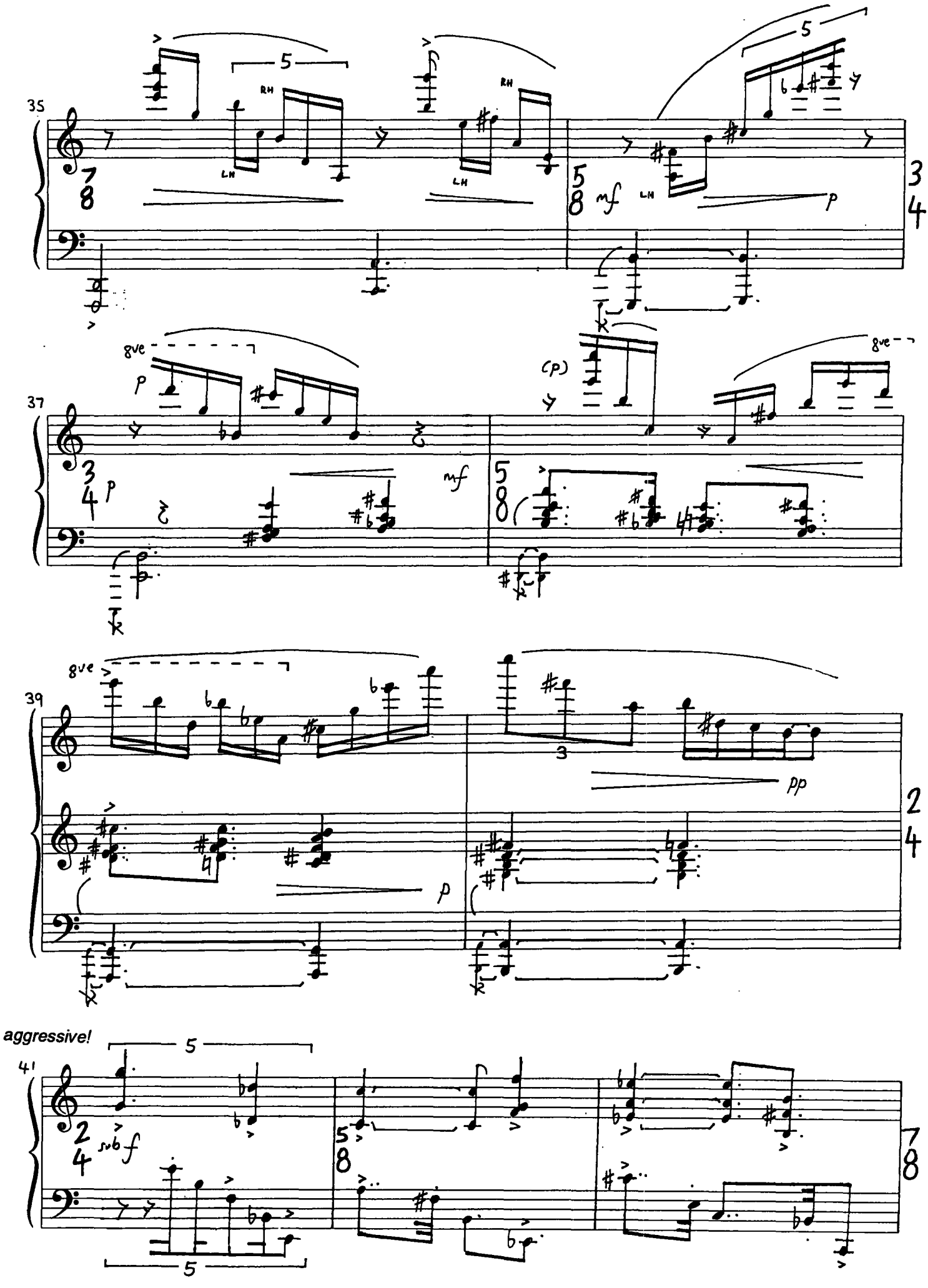
pp
30
pp
mf
LH
33
f
ff
LH
RH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RH
LH
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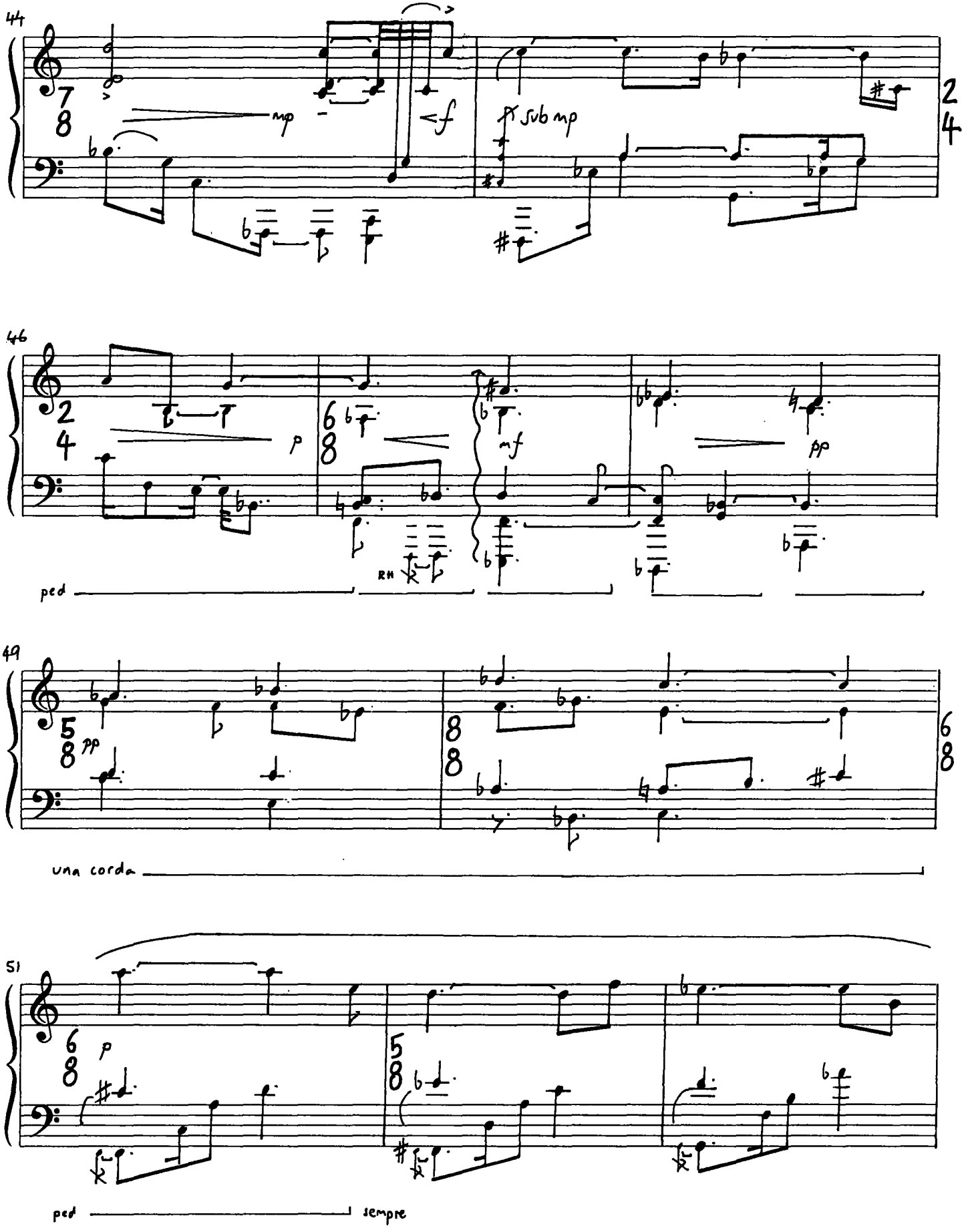
p
37
8ve
mf
(p)
39
pp
aggressive!
41
subf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sub mp
46
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mf
pp
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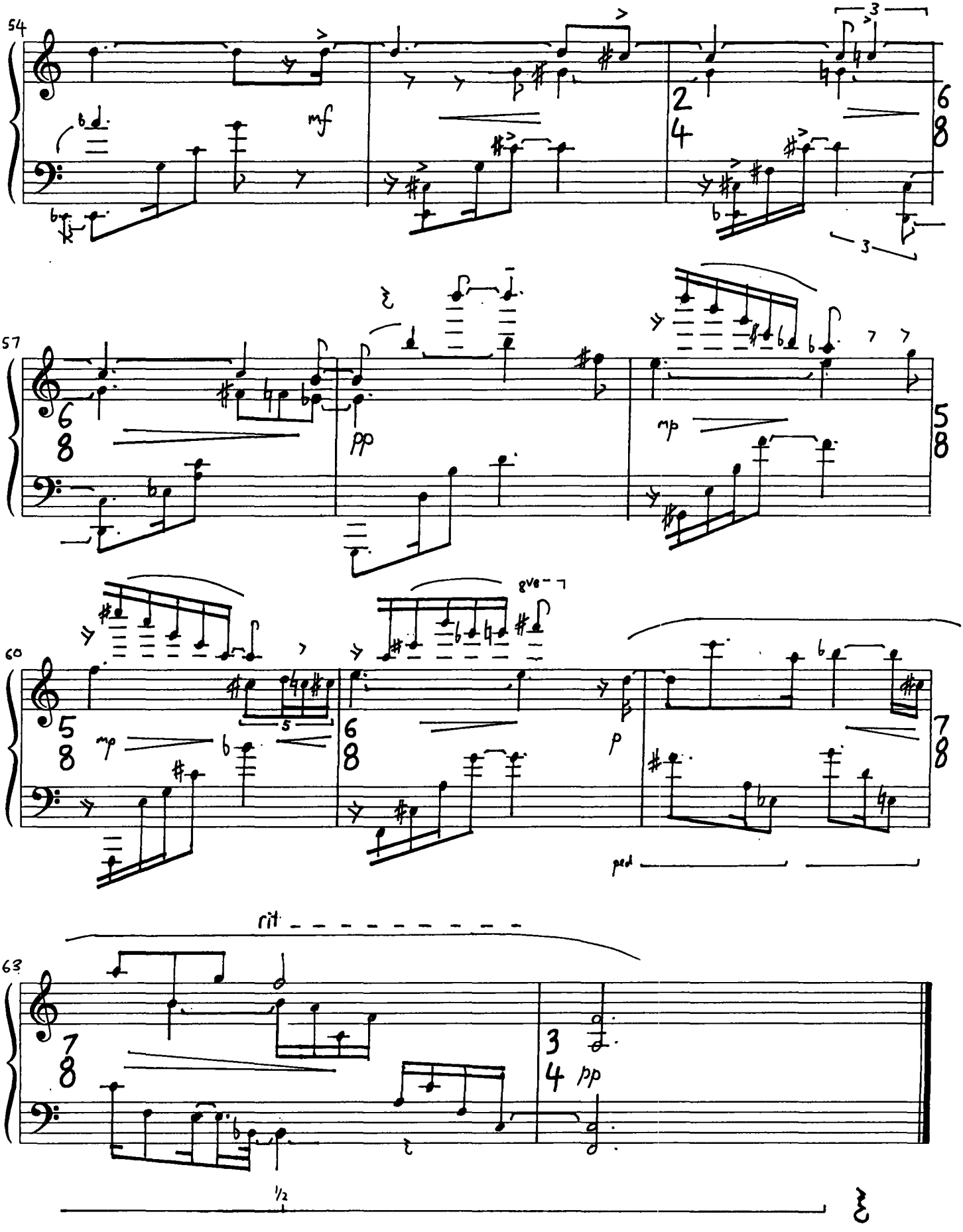
ped
49
pp
una corda
51
p
ped
sempre


54
mf
57
pp
mp
60
mp
p
8va
ped
rit
63
pp
M. Young Durham, 1990

When a parasol is cooled...

Michael Young

Instrumentation

flute
violoncello
mezzo soprano
piano

Text

International Chainpoem

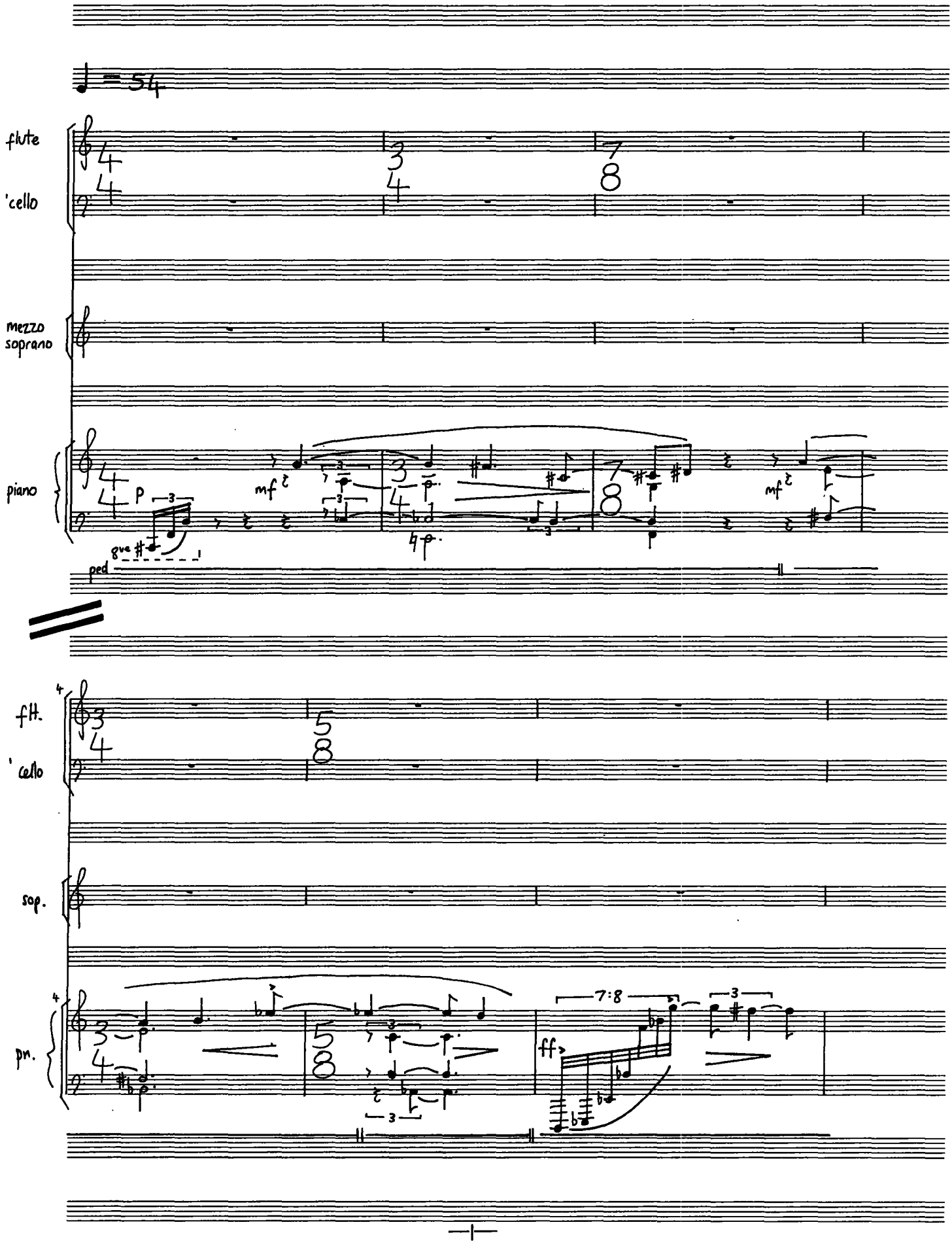
When a parasol is cooled in the crystal garden,
one spire radiates and the other turns round;
a toad, the Unwanted, counts the ribs teardrops
while I mark each idol in its dregs.
There is a shredded voice, there are three fingers
that follow to the end a dancing gesture
and pose a legend under the turning shade
where the girl's waterfall drops its piece.
Then balls of ennui burst one by one,
by and by metallic metres escape from ceramic pipes.
Oh sun, glass of cloud, adrift in the vast sky,
spell me out a sonnet of a steel necklace.

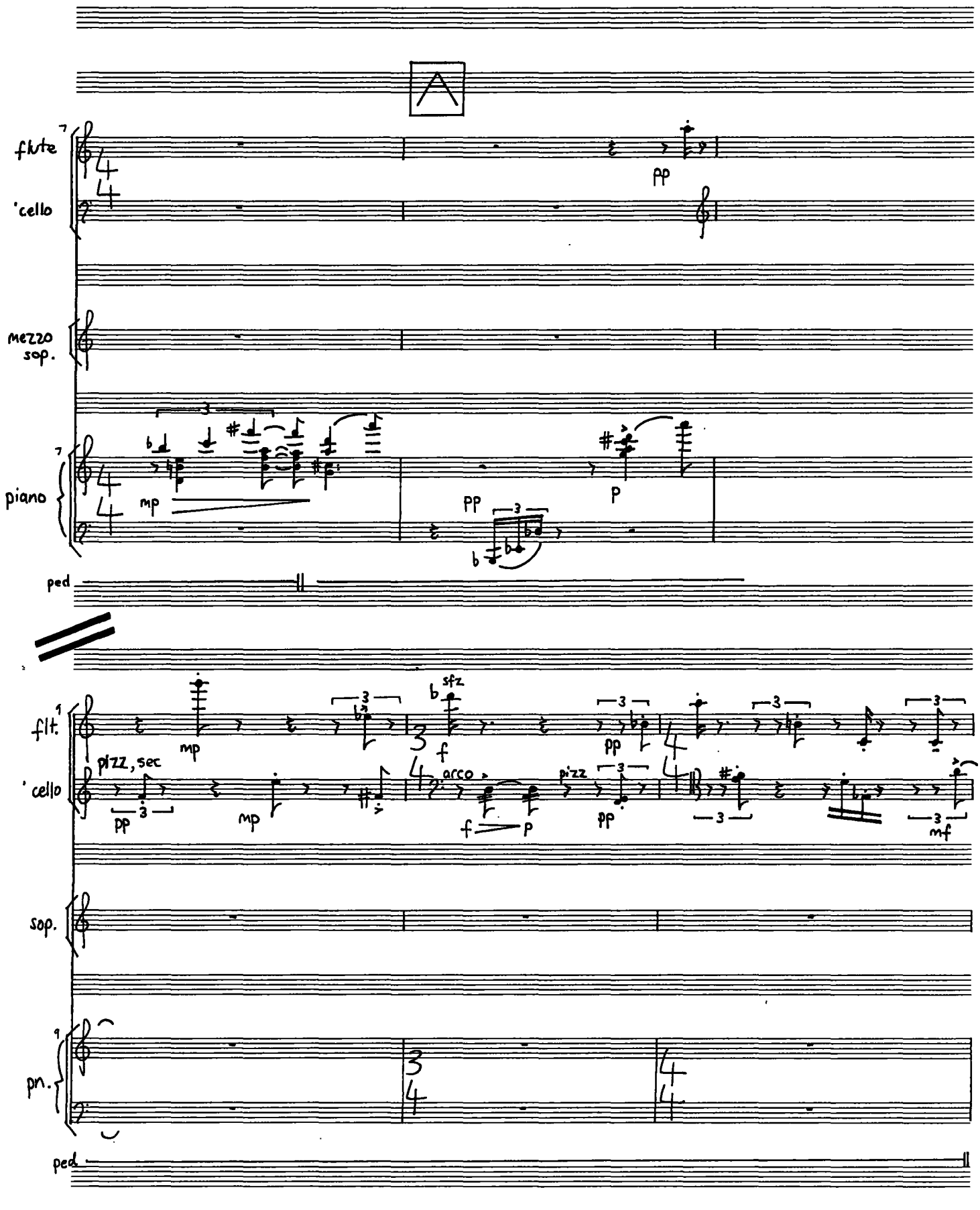
Authors by line

(1. Takesi Fuji 2. Katue Kitasono 3. Charles Henri Ford 4. Dorian Cooke 5. Norman MacCaig 6. Gordon Sylander 7. George M. O'Donnell 8. Parker Tyler 9. Saburoh Kuroda 10. Nageo Hirao 11. Syuiti Nagayasu 12. Tuneo Osada).

"When a parasol is cooled..."

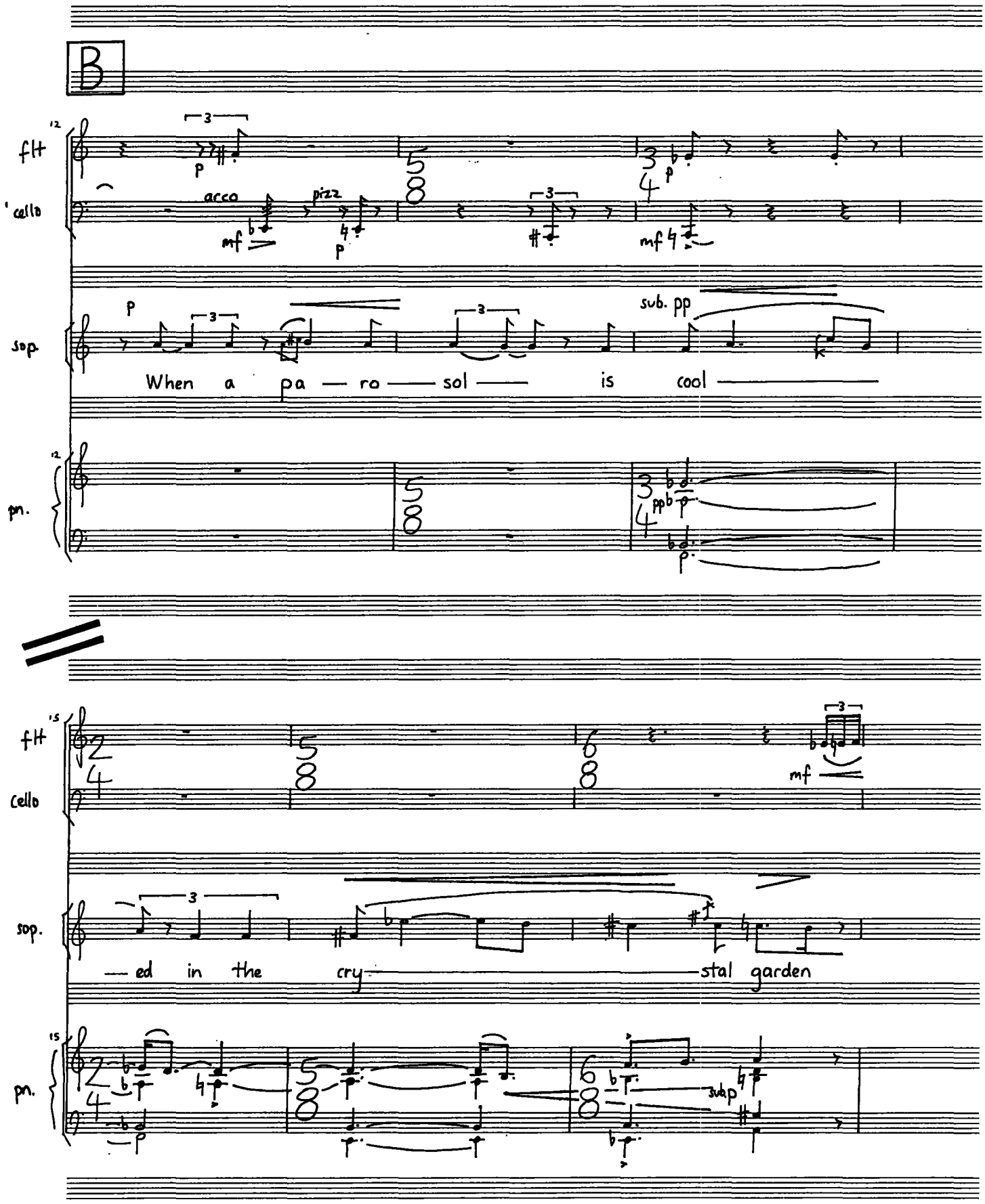
Michael Young



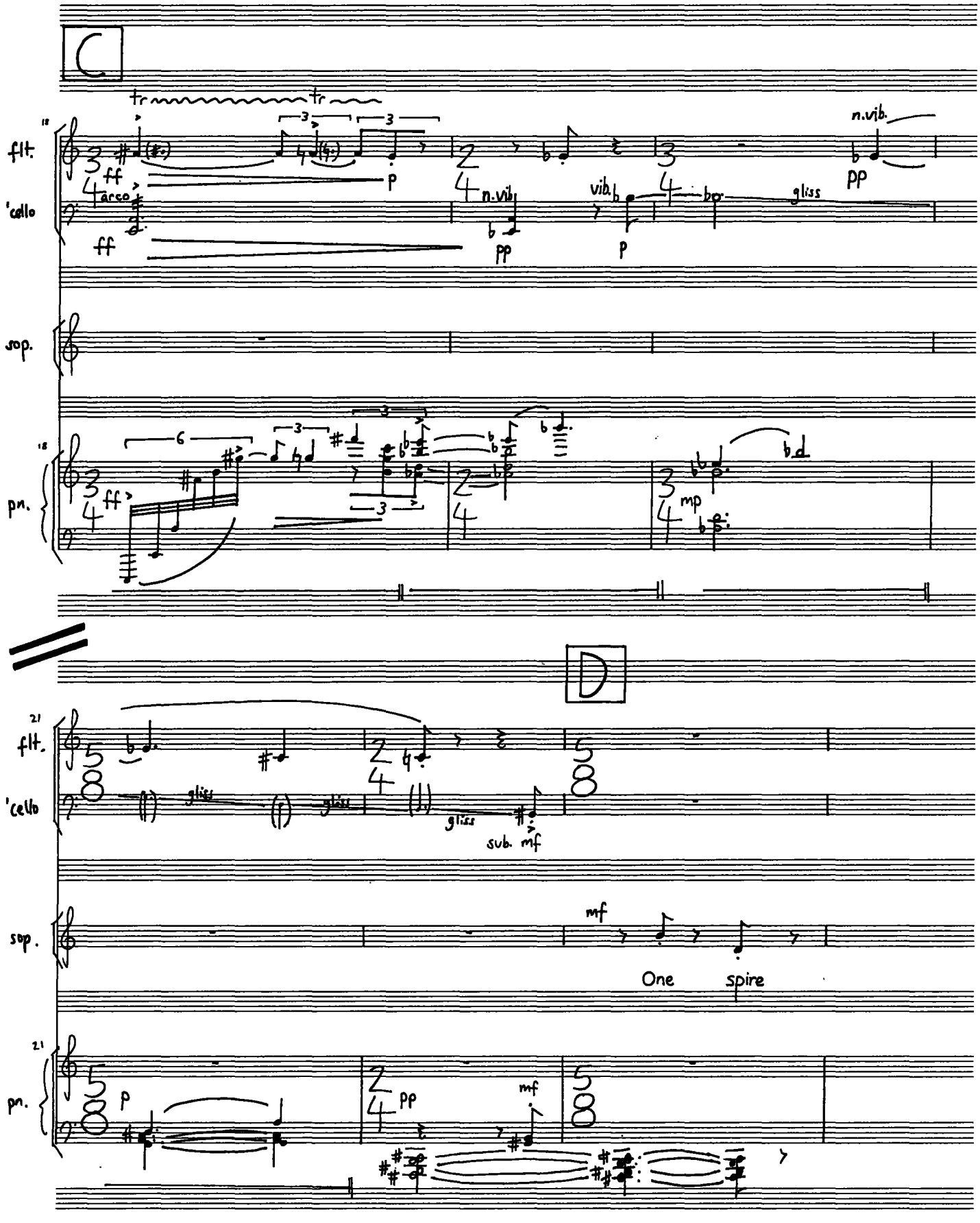


FINALE 2000 PANOPUS SCORE-SYSTEM®

Order Ref. No. 12715



D20 PANOPUS SCORE-SYSTEM©
Order Ref. No. 12715



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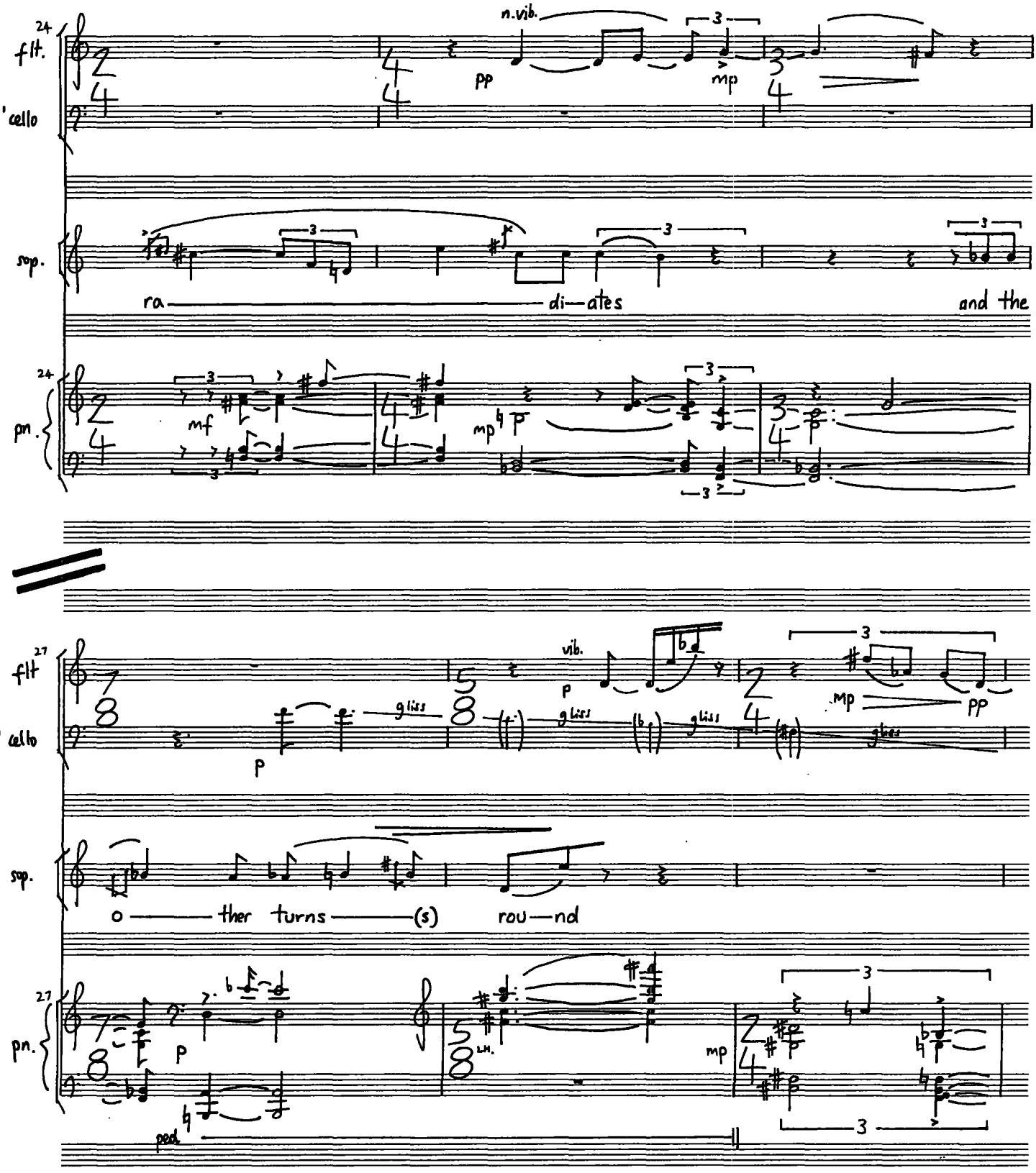

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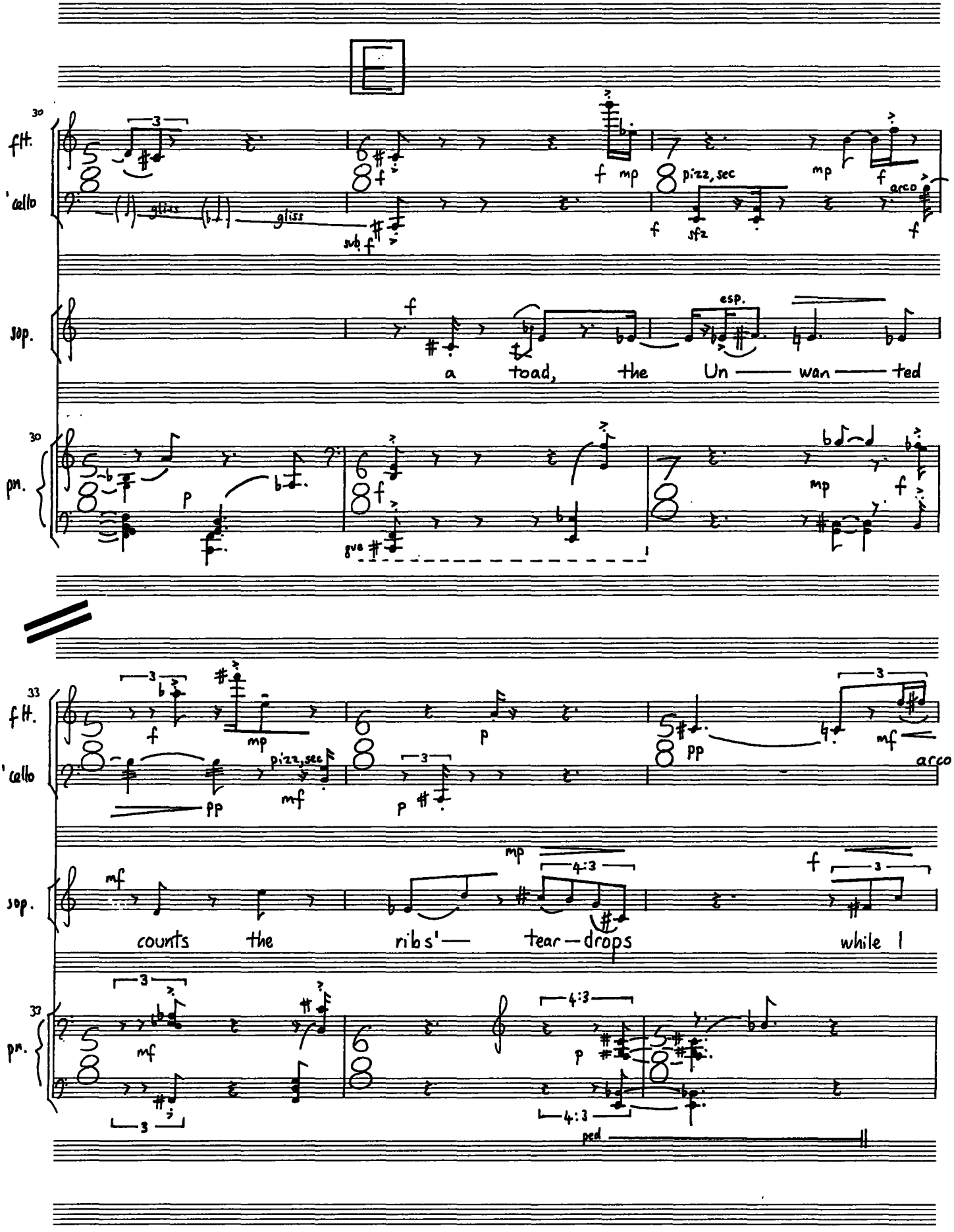

4D20 PANOPUS SCORE-SYSTEM®

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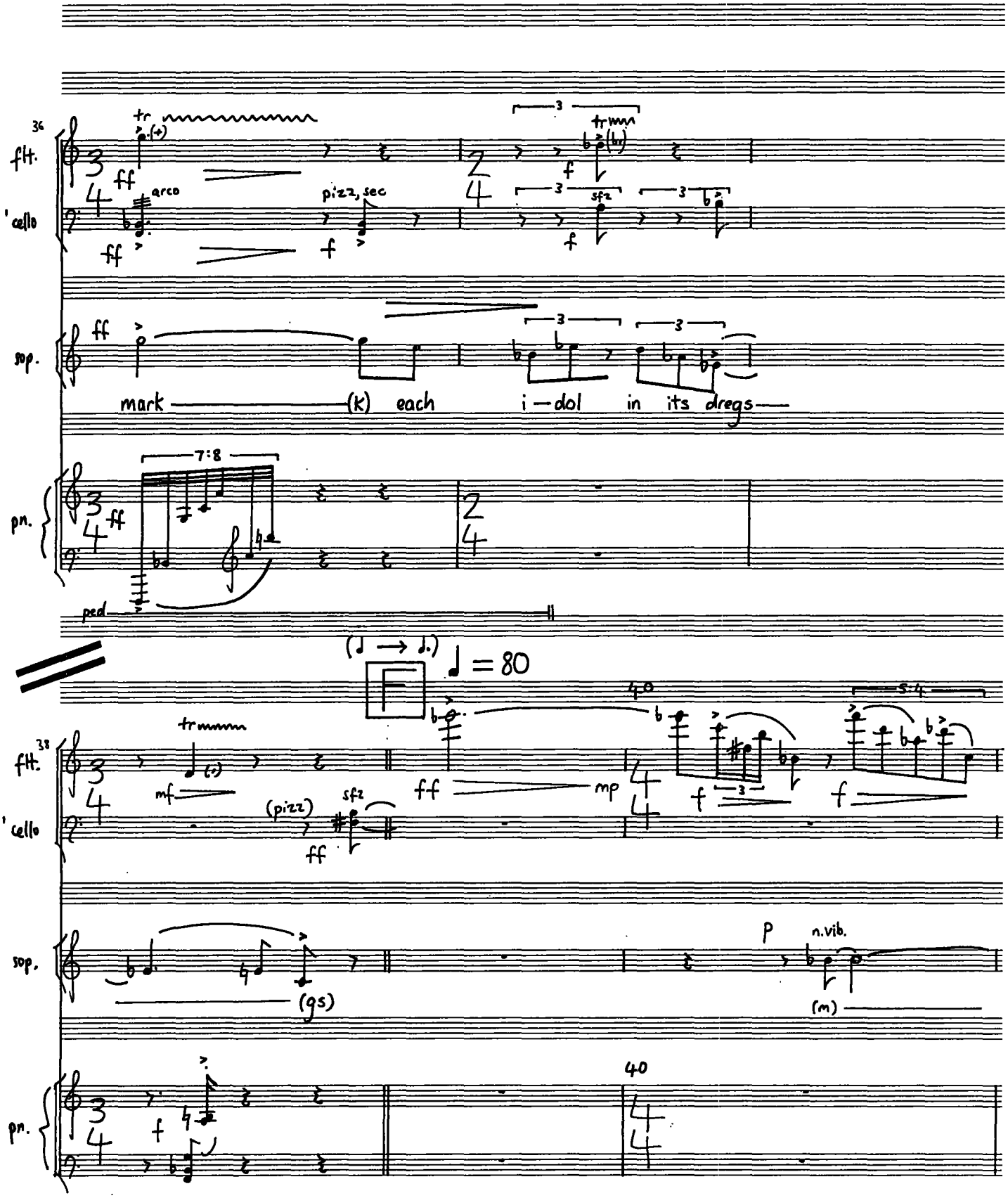

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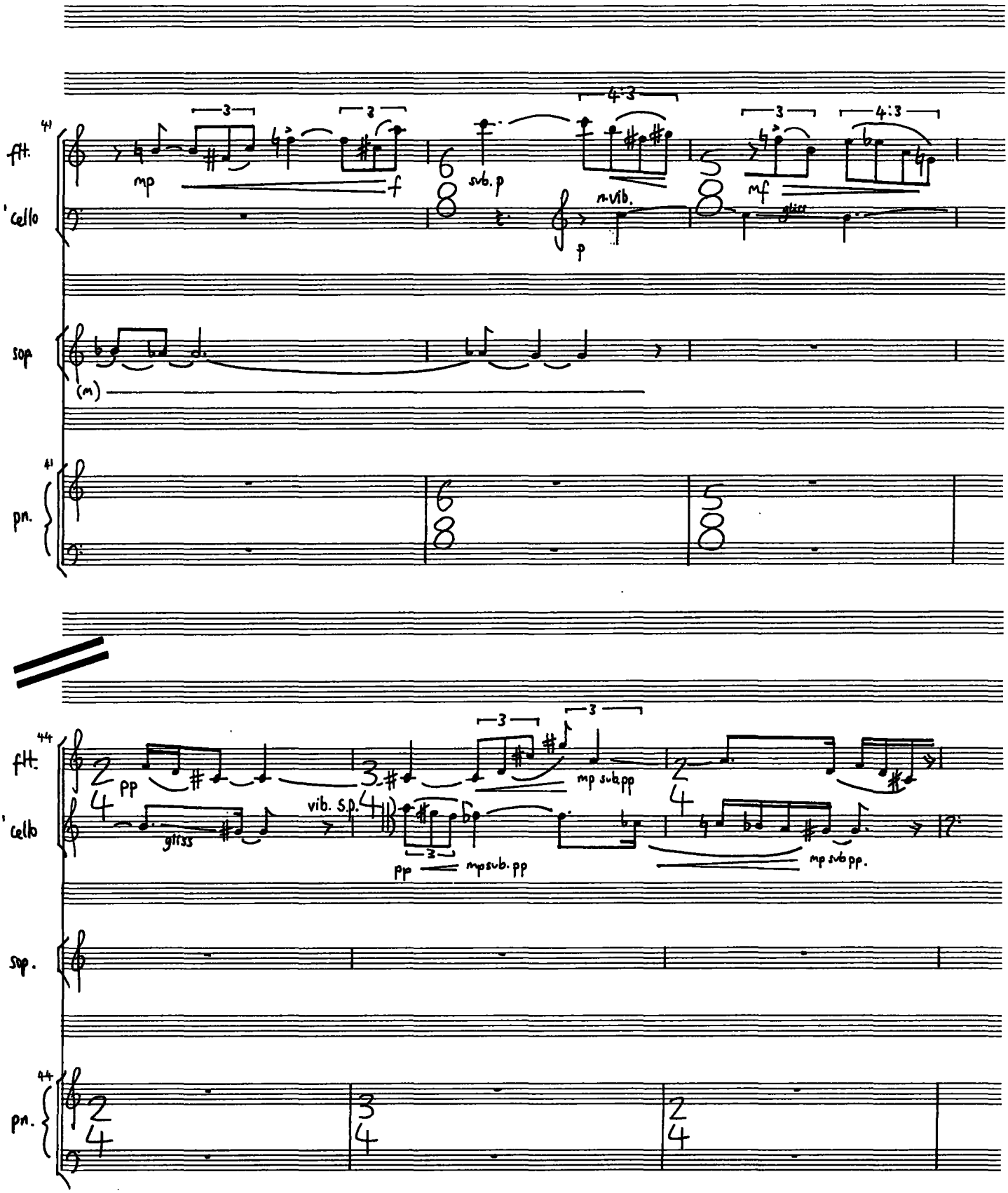

D2O PANOPUS SCORE-SYSTEM©

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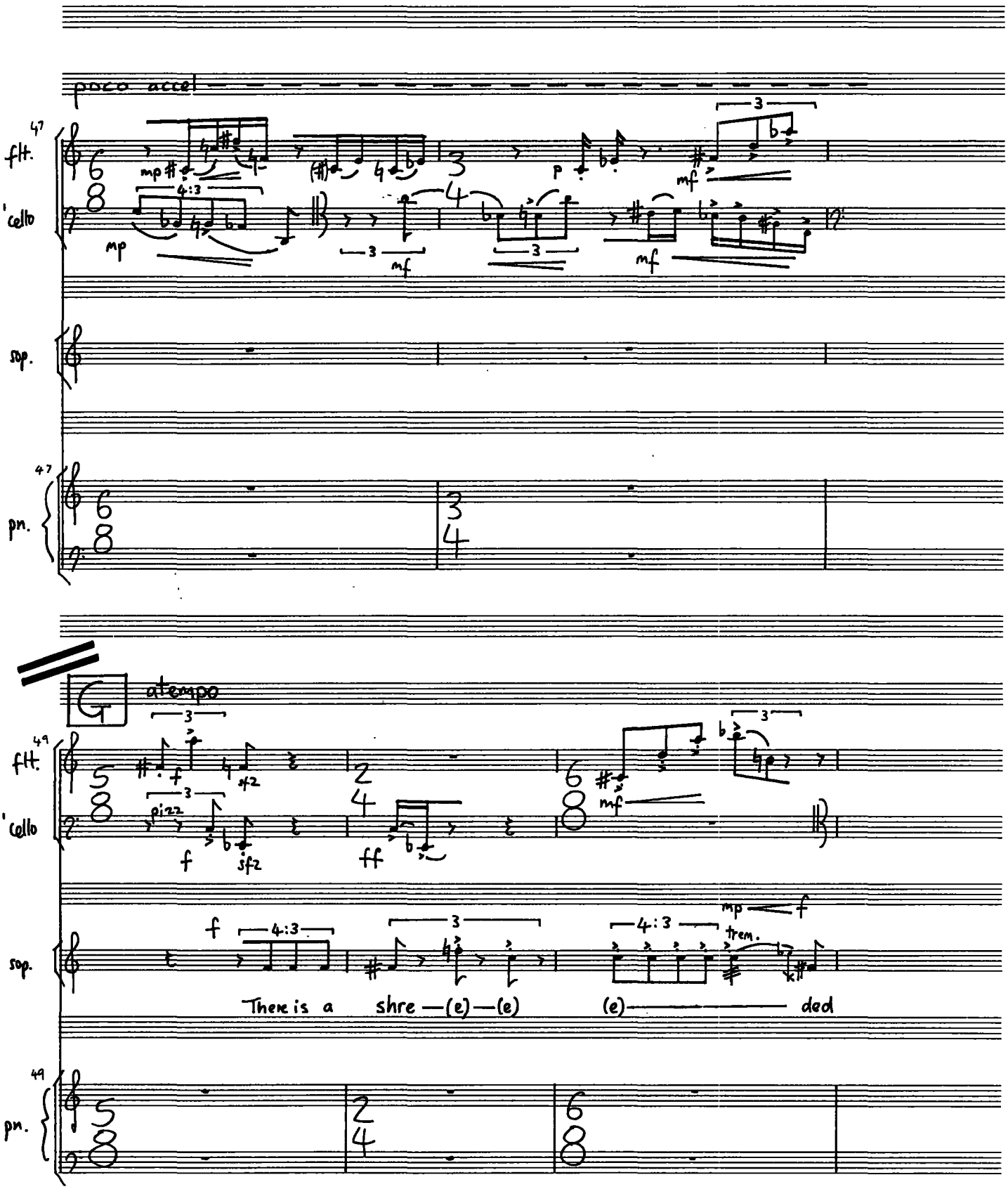

2D20 PANOPUS SCORE-SYSTEM©

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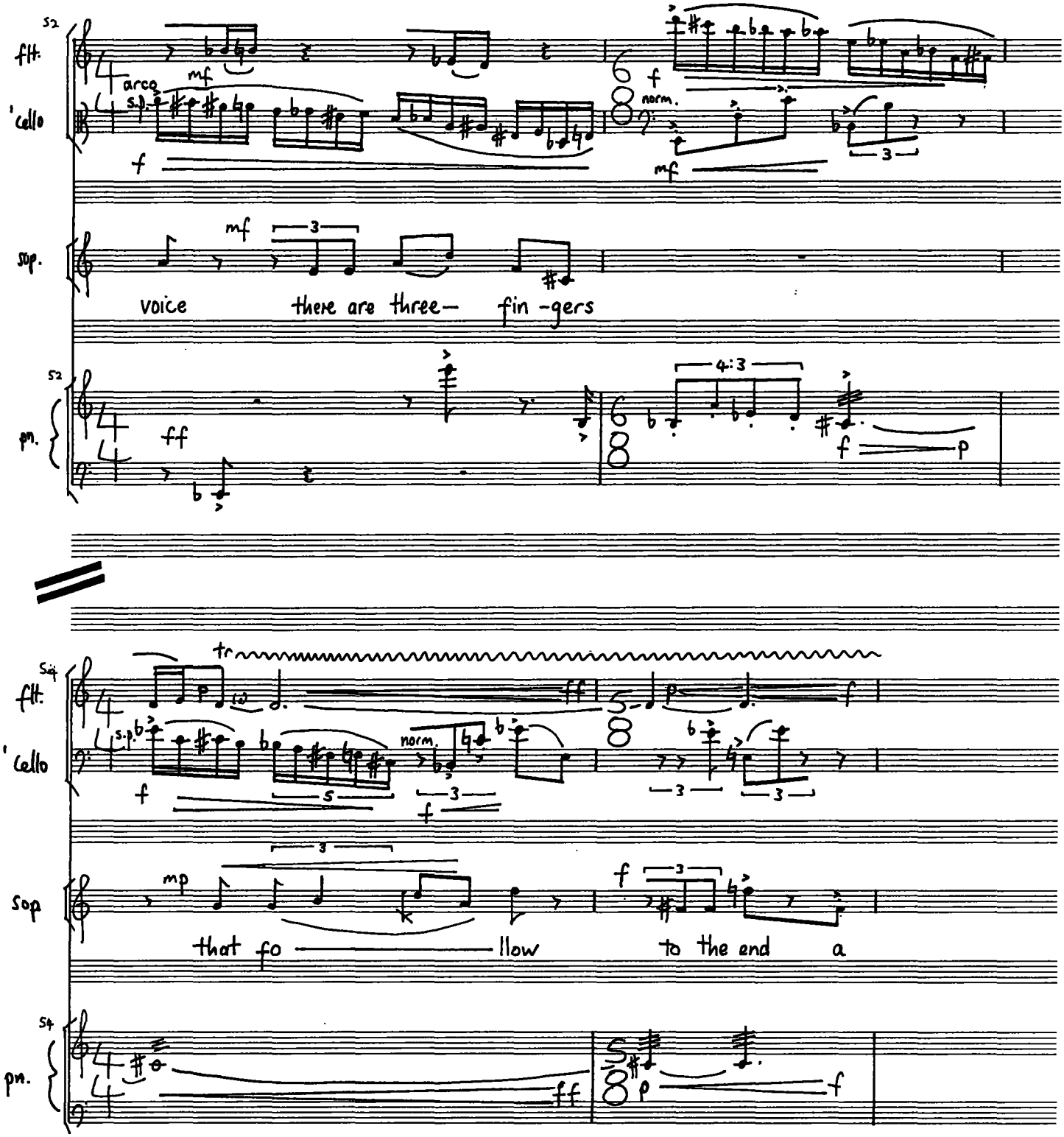

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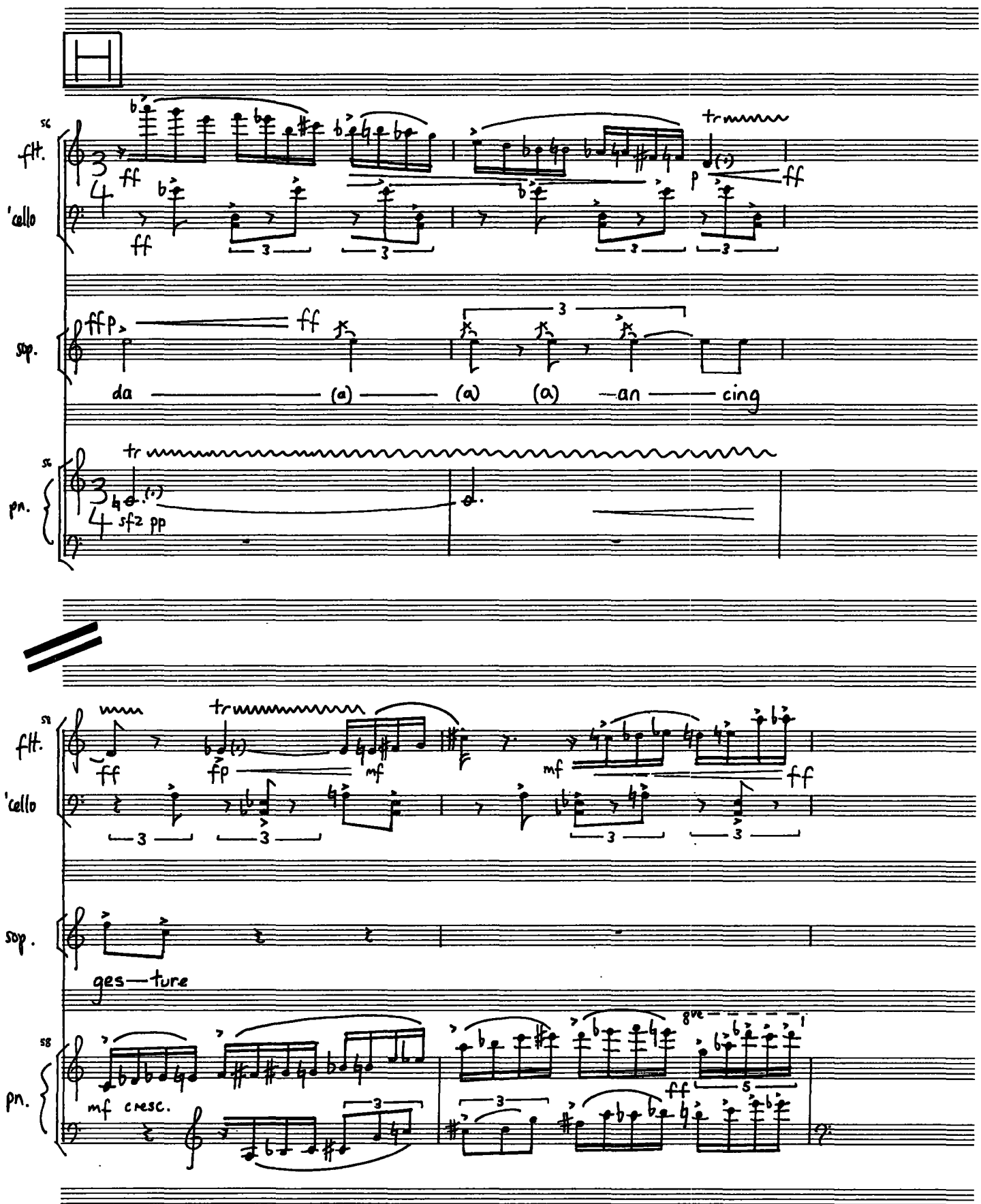

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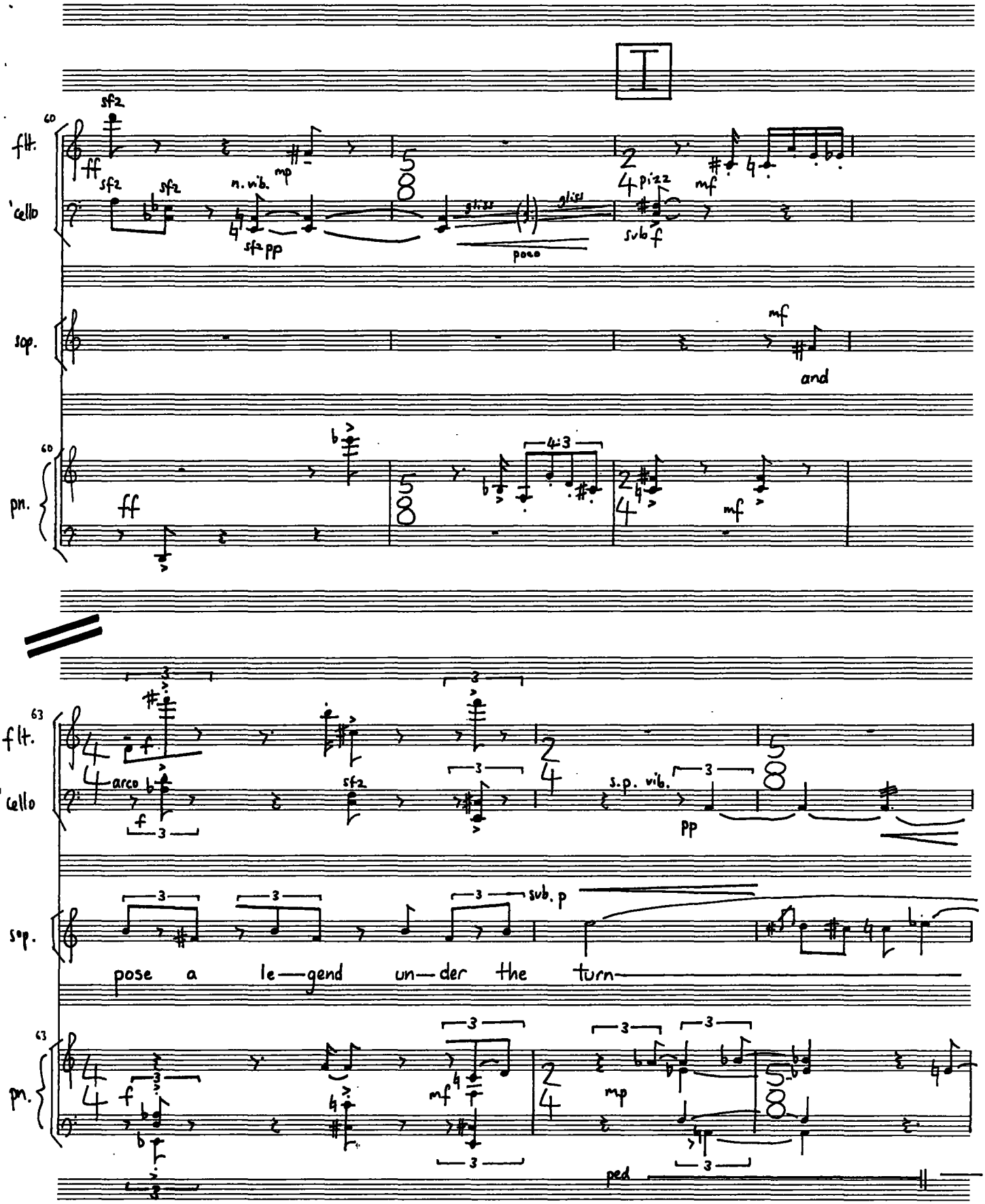

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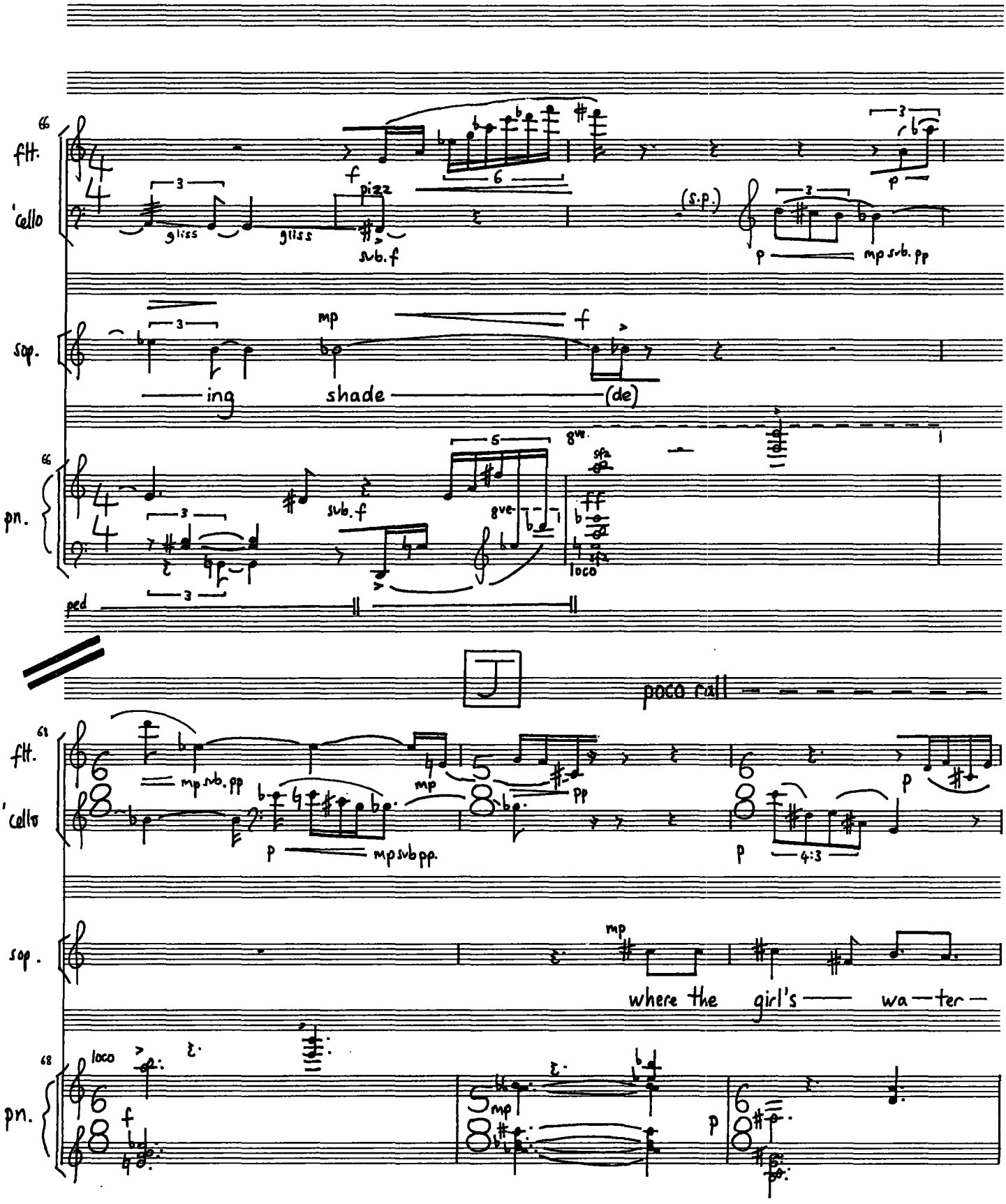

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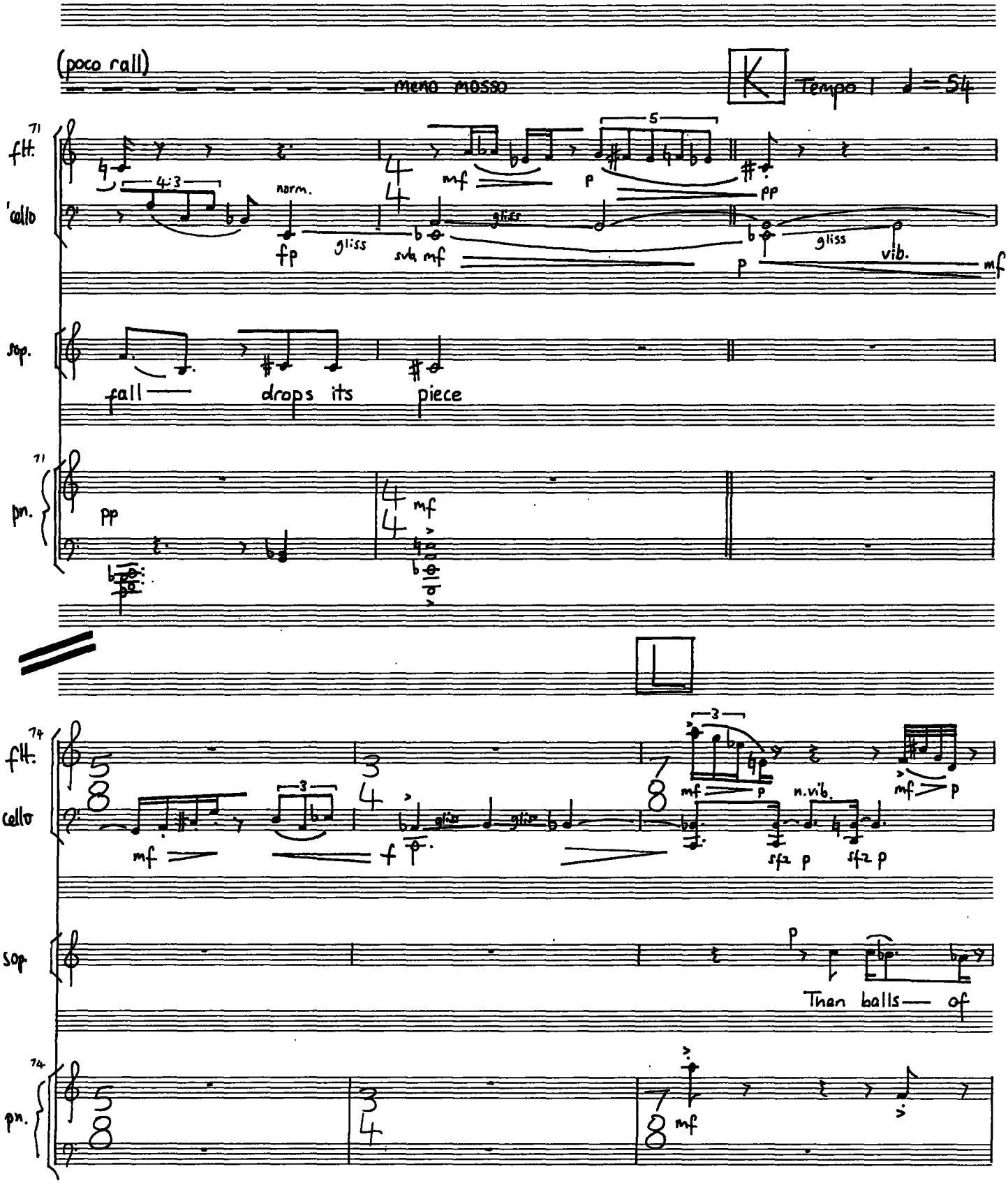

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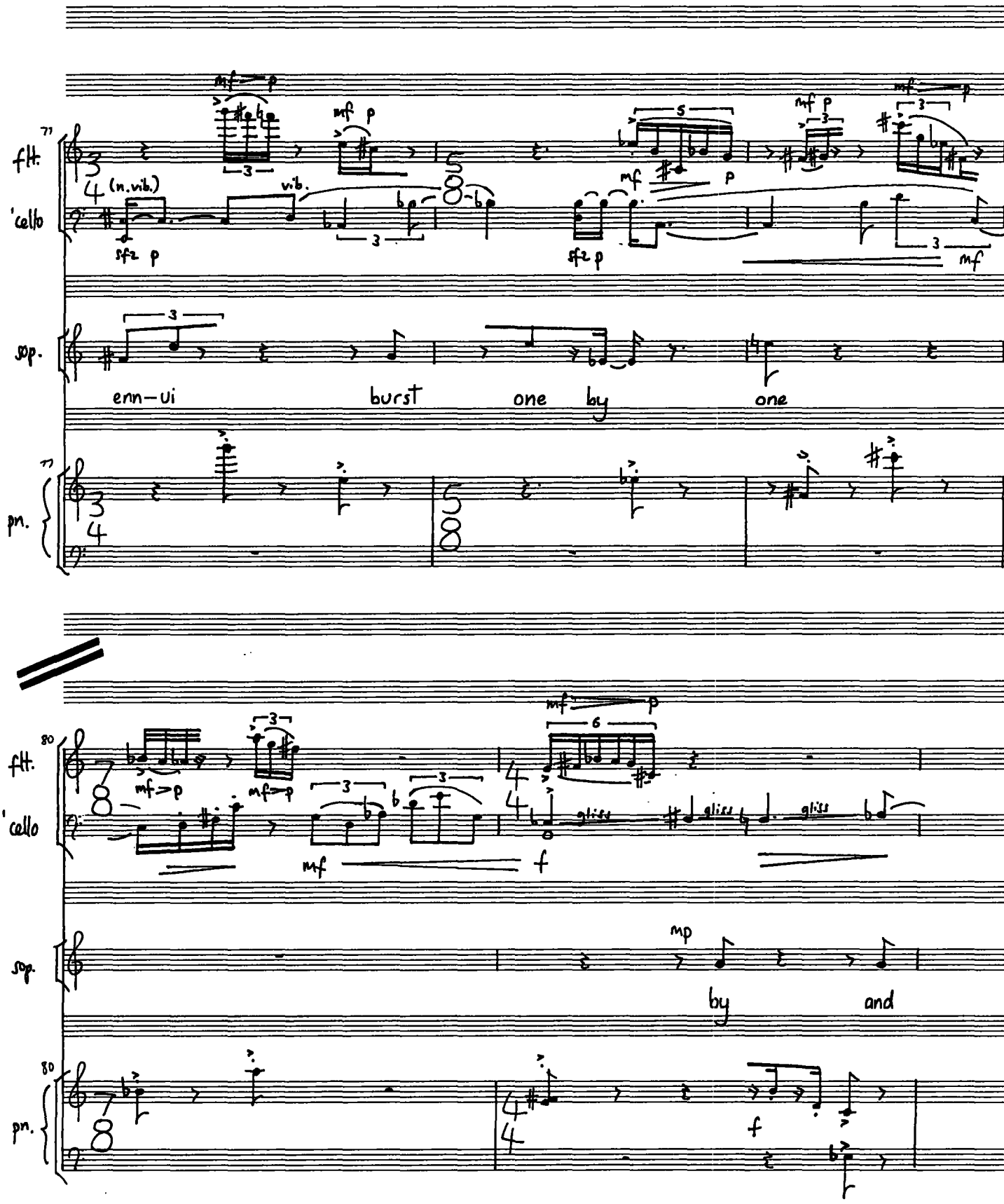

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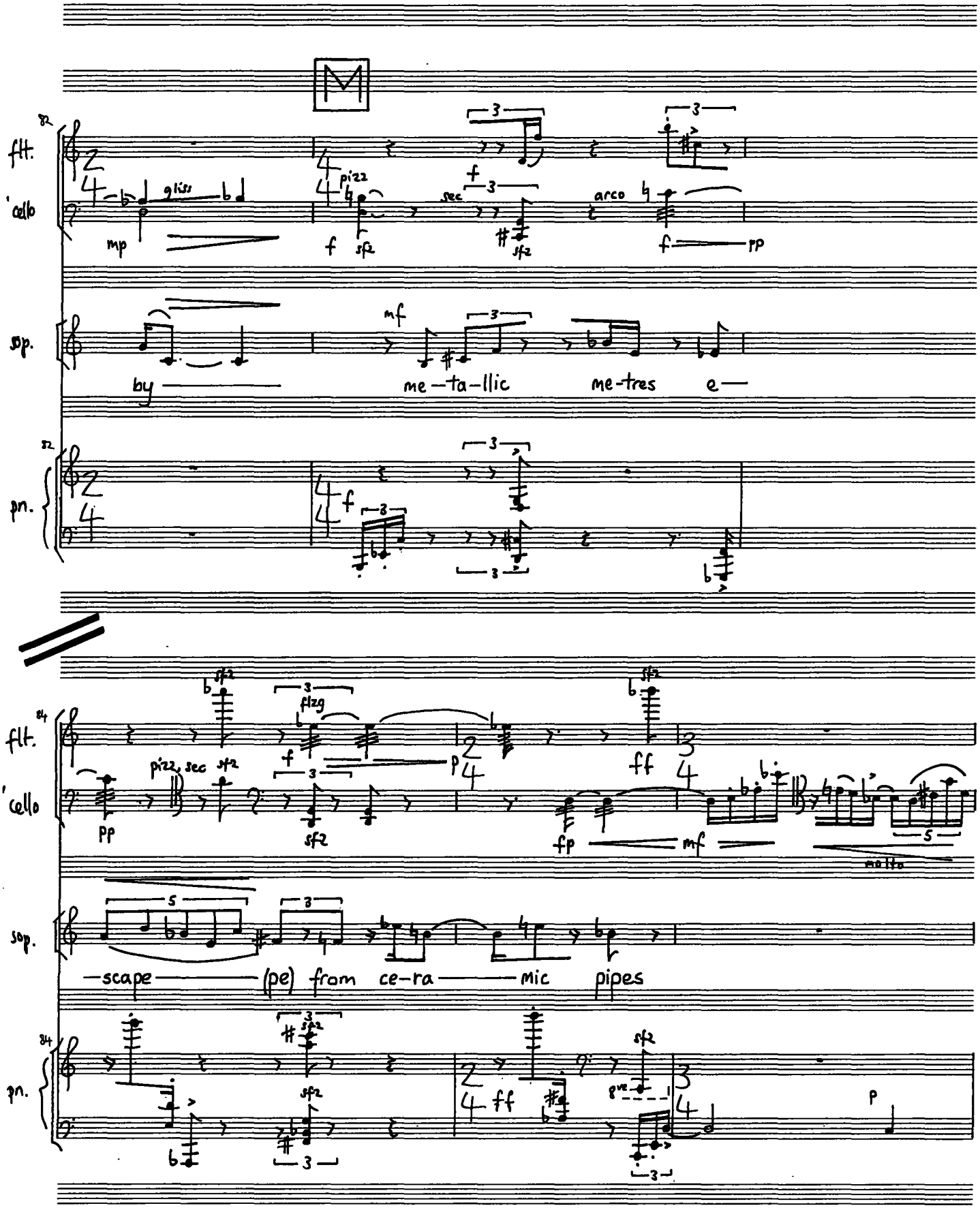

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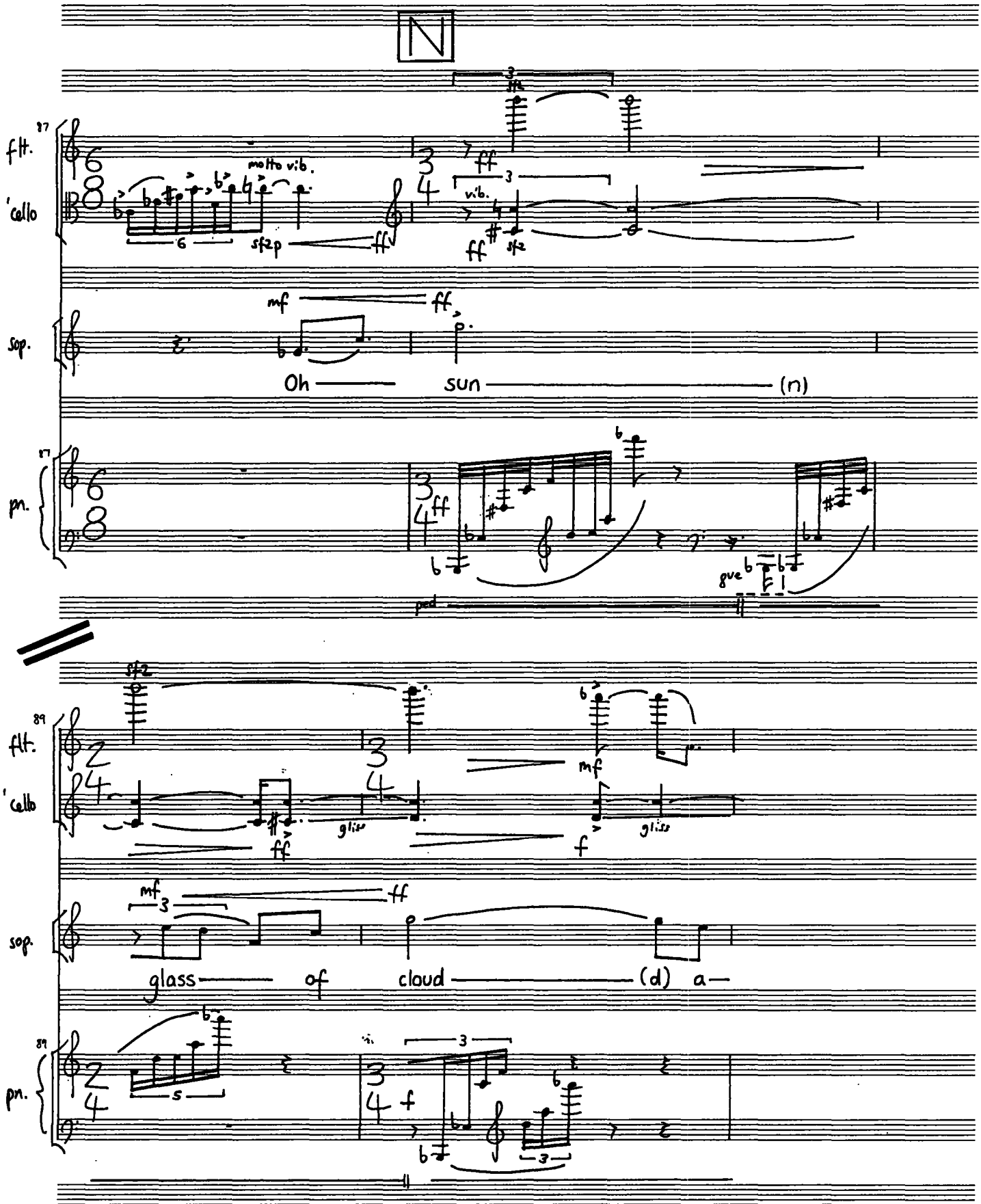

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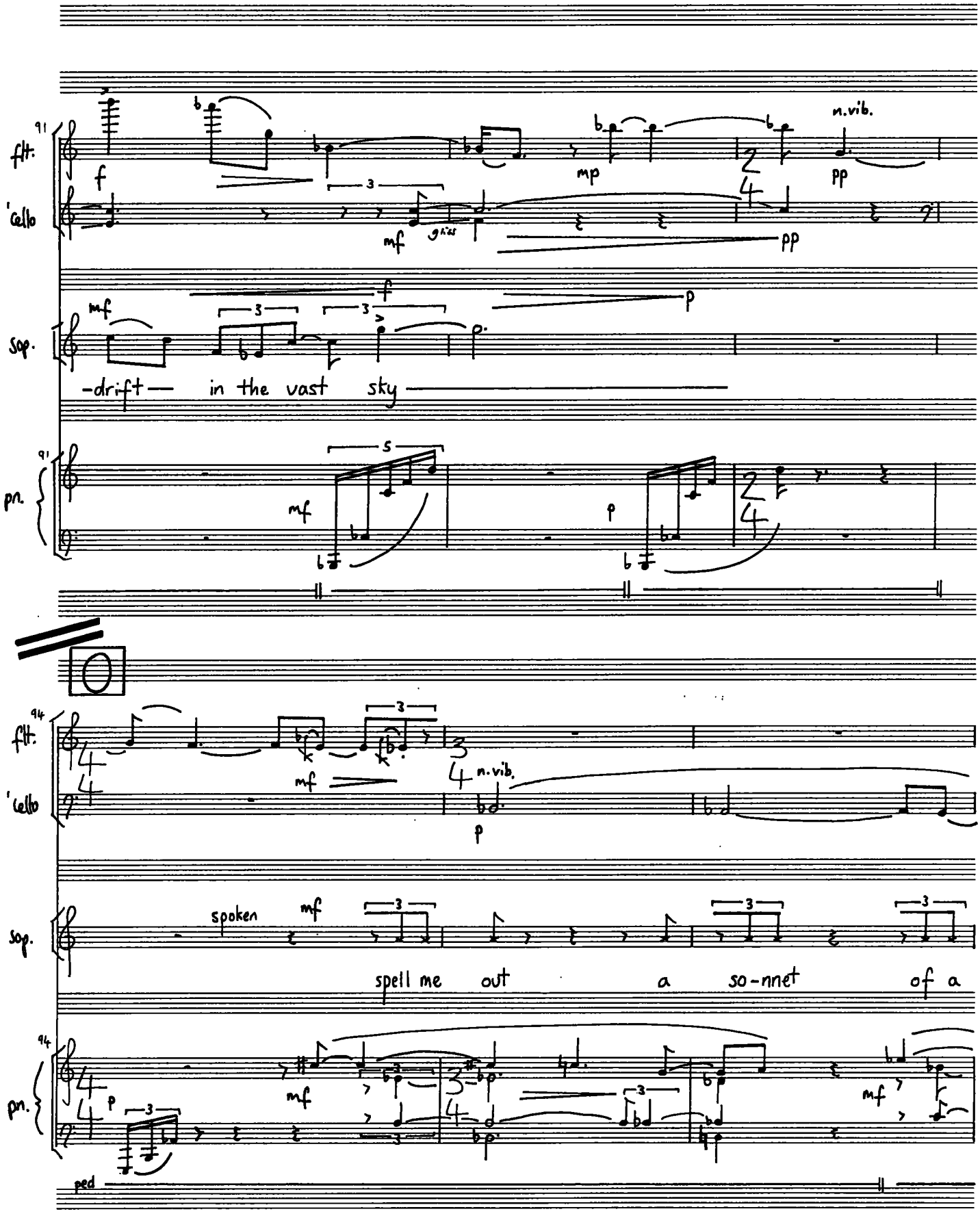

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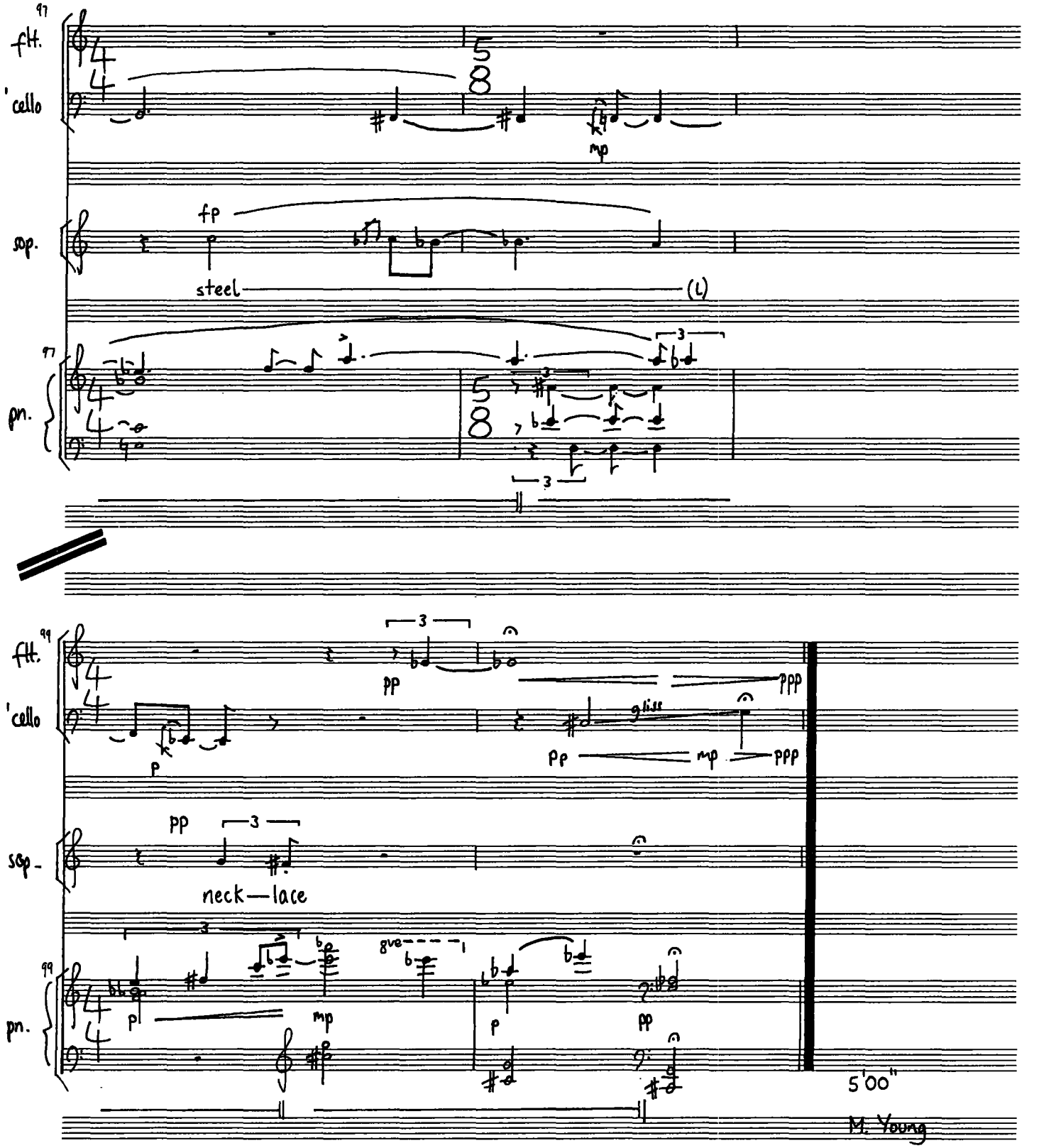
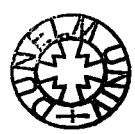


3D20 PANOPUS SCORE-SYSTEM®
Order Ref. No. 12715

Dances and Visions

Michael Young



Instrumentation

flute/piccolo
2 clarinets in Bb
bassoon
piano
marimba
2 violas
violoncello

all instruments are notated in C

Text

extracts from "Vision" by Harry Crosby

♩=76

Dances and Visions

Michael Young

piccolo

clarinet 1

clarinet 2

bassoon

marimba

piano

plucked p

ped

viola 1

viola 2

violoncello

esp

mf

I exchange eyes with the Mad Queen...

pic

clt 1

clt 2

ba

mar

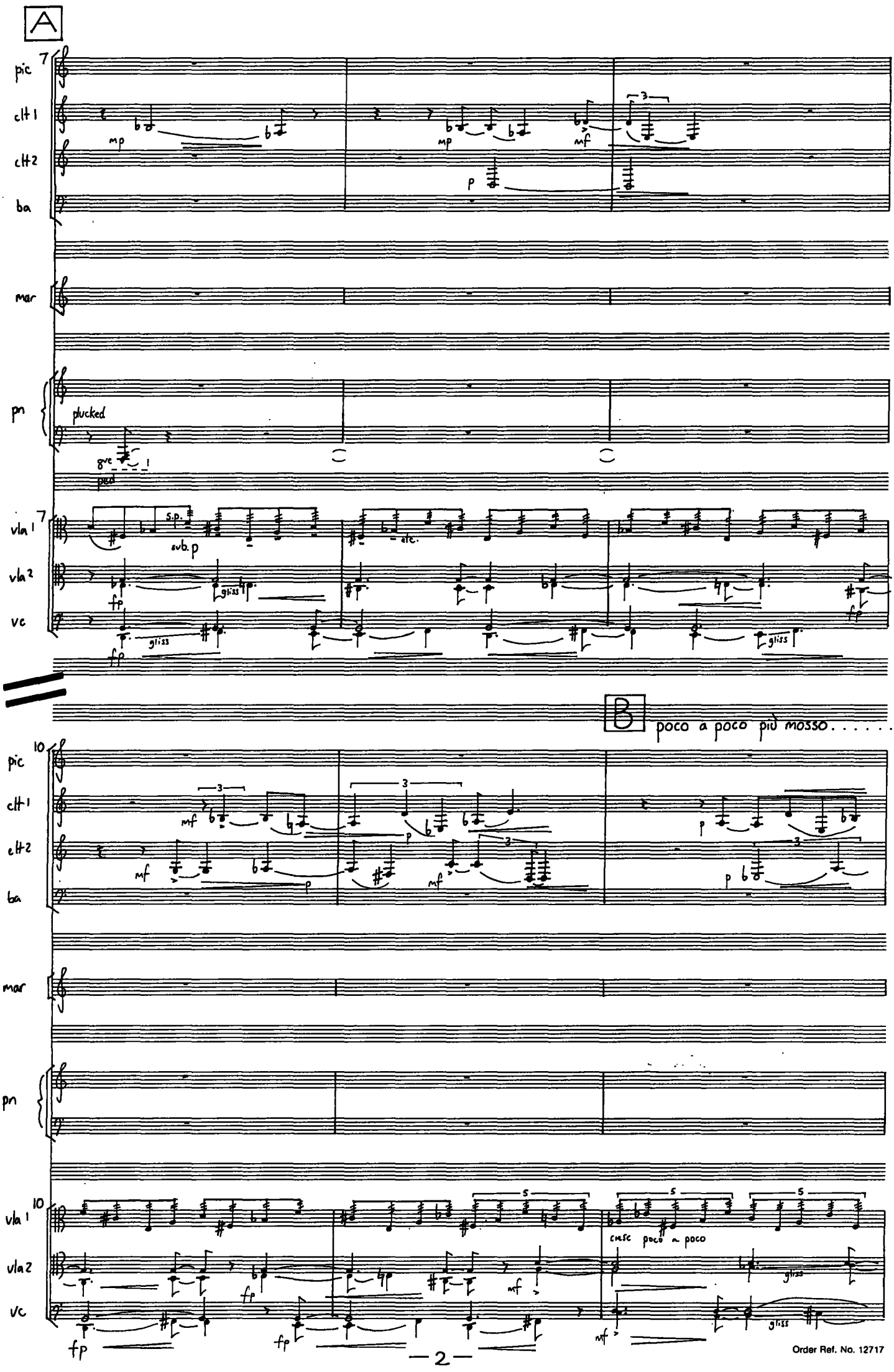
pn

vla 1

vla 2

vc

Order Ref. No. 12717



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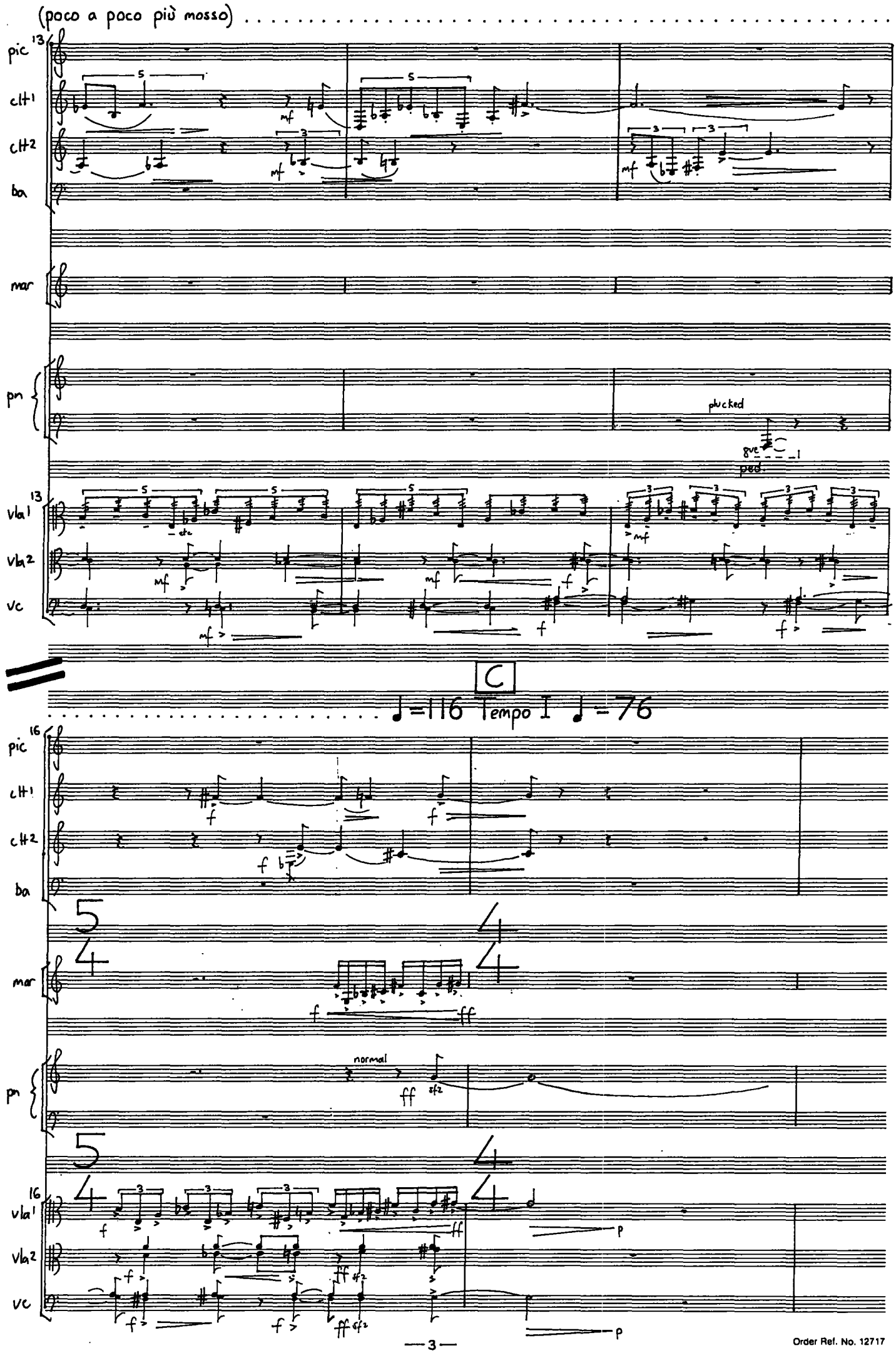

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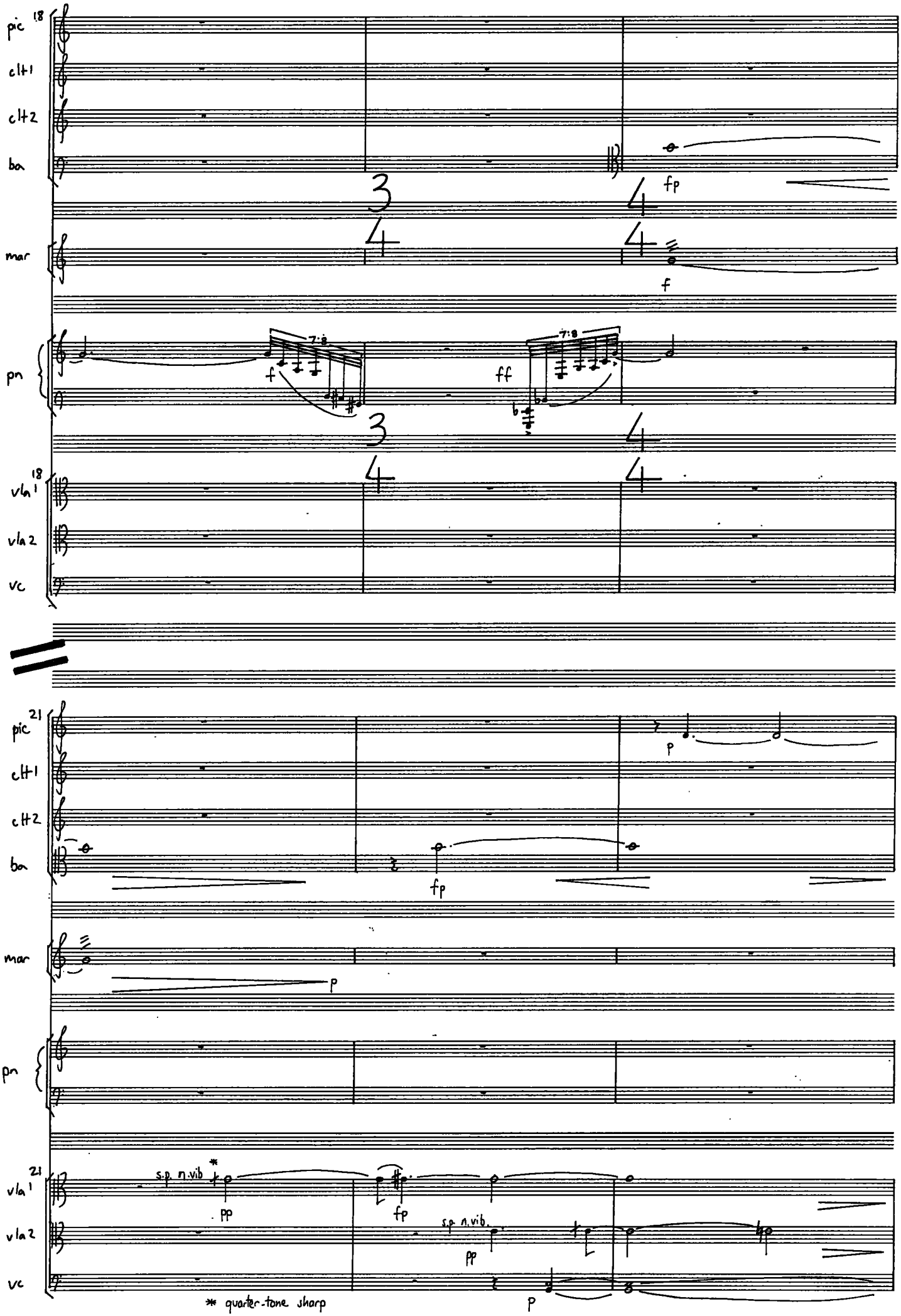

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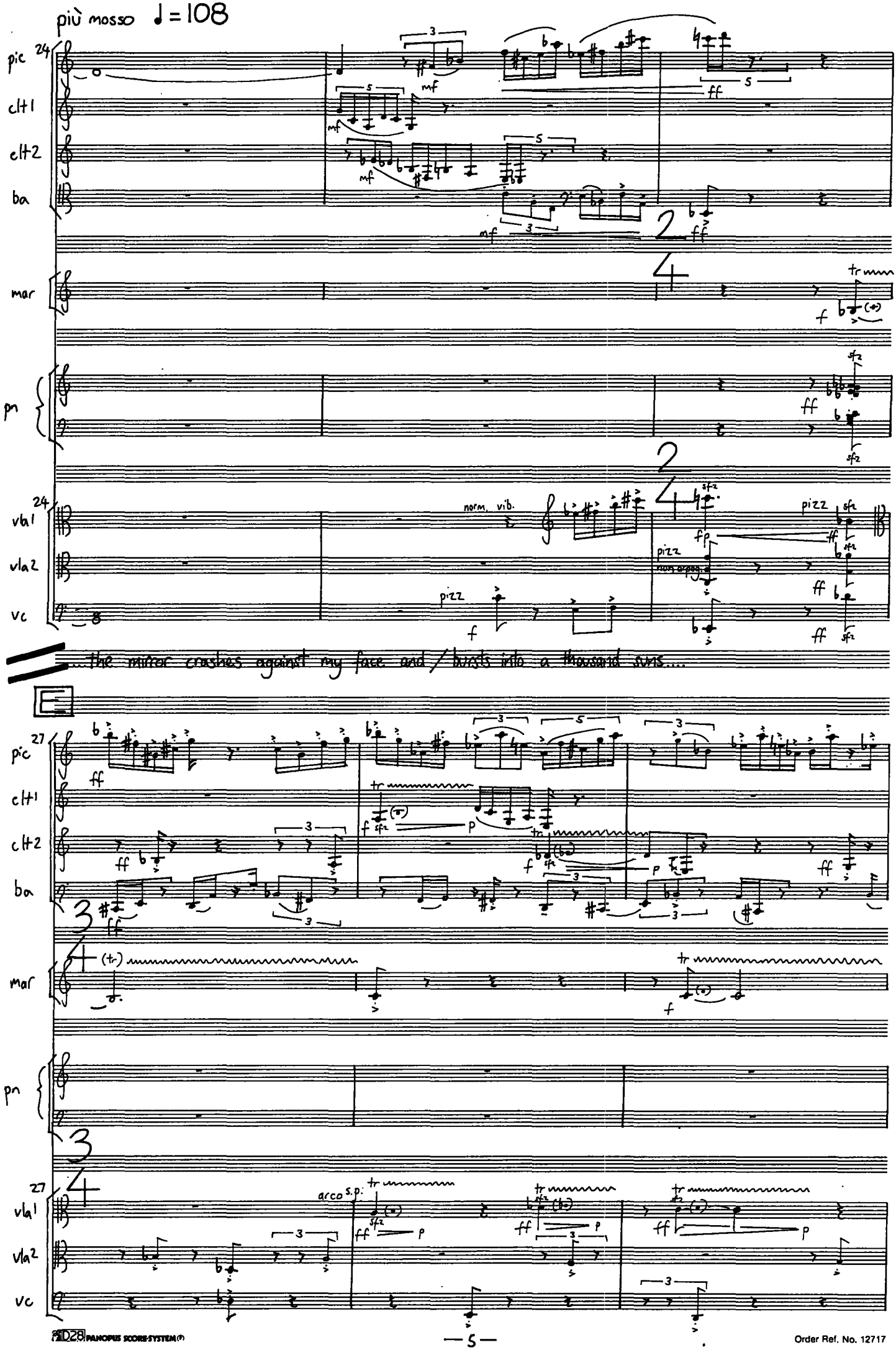
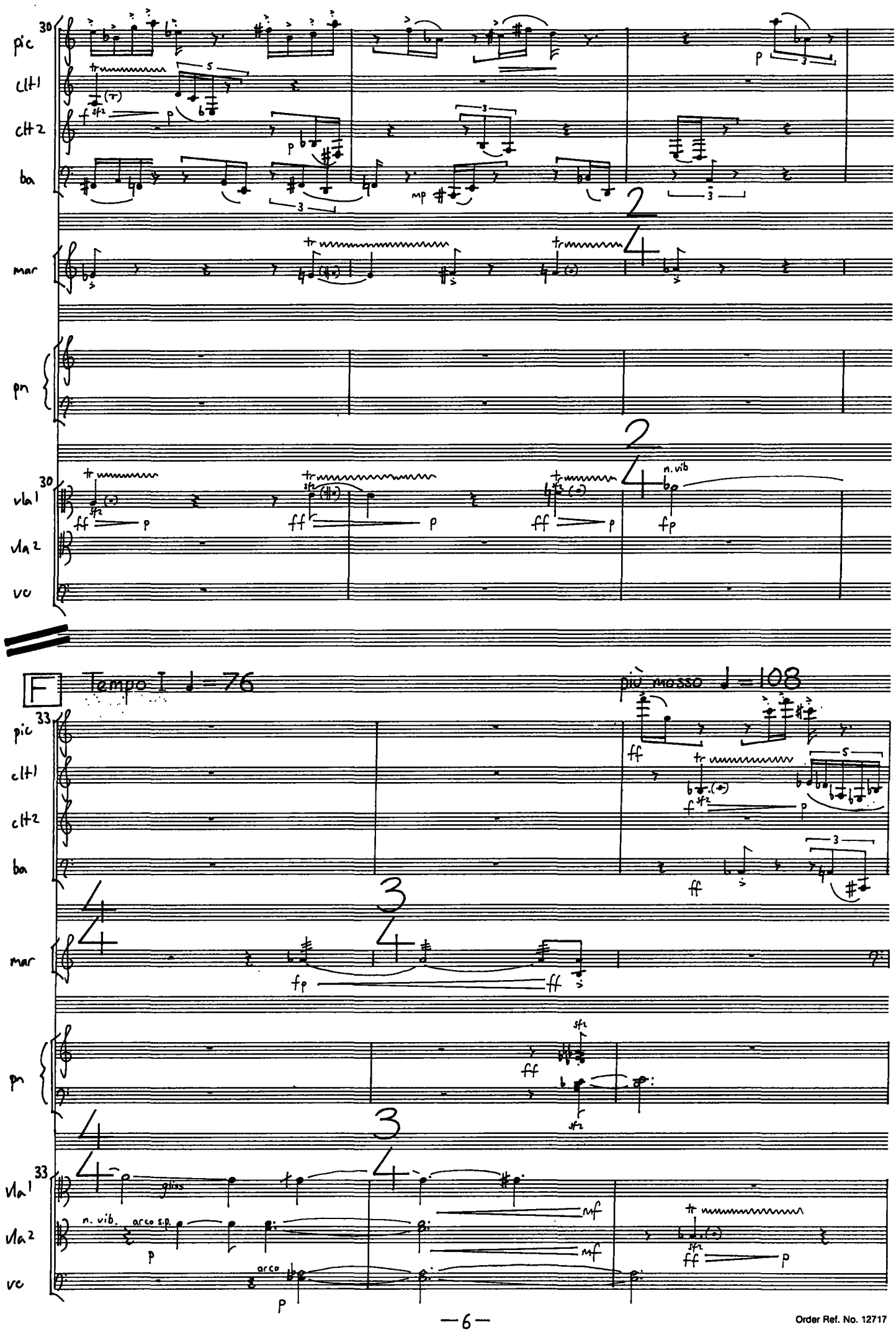

più mosso ♩= 108
pic
clt1
clt2
ba
mar
pn
vla1
vla2
vc
norm. vib.
pizz
non arpeg.
...the mirror crashes against my face and / bursts into a thousand suns...
arco s.p.



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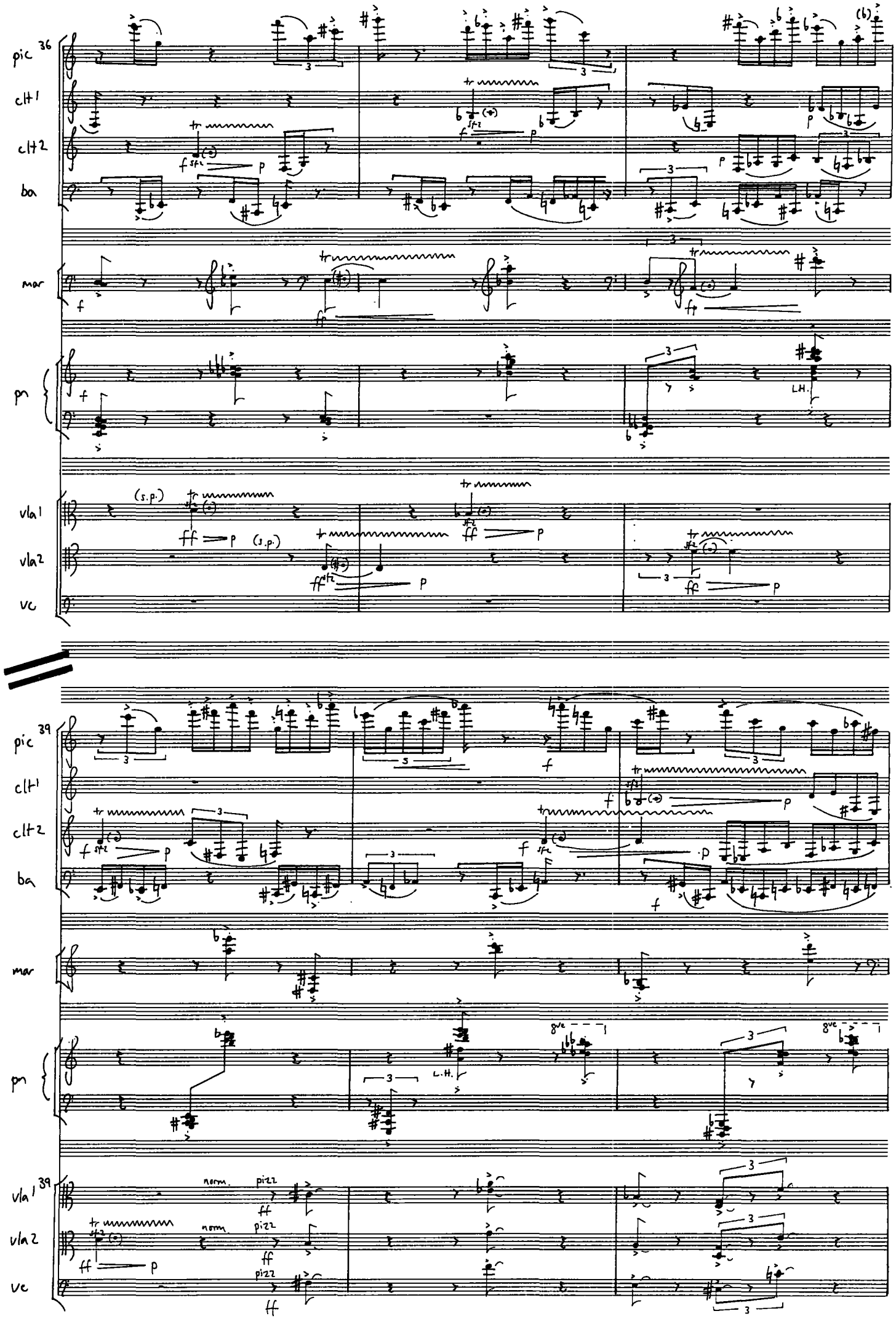

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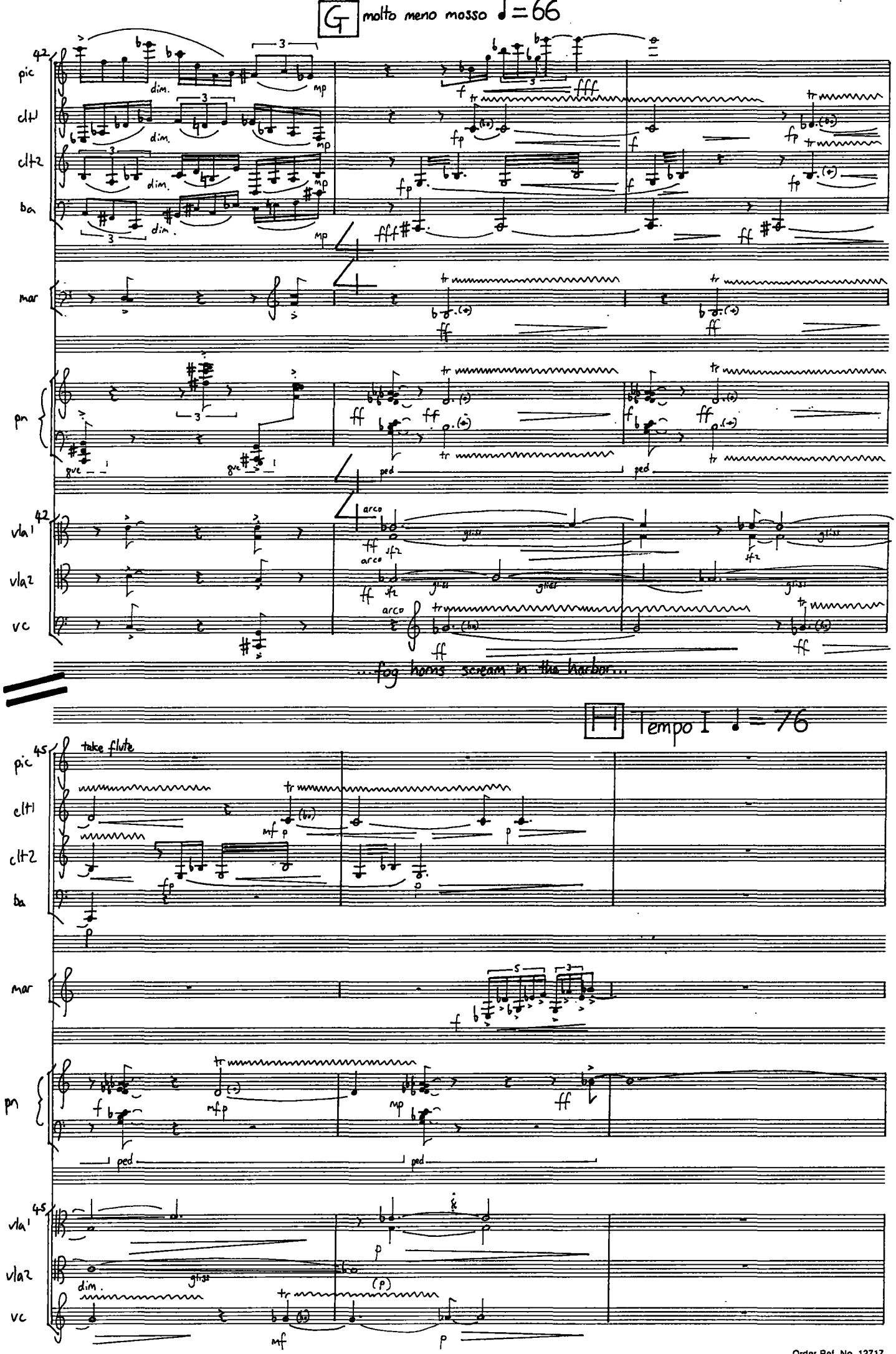

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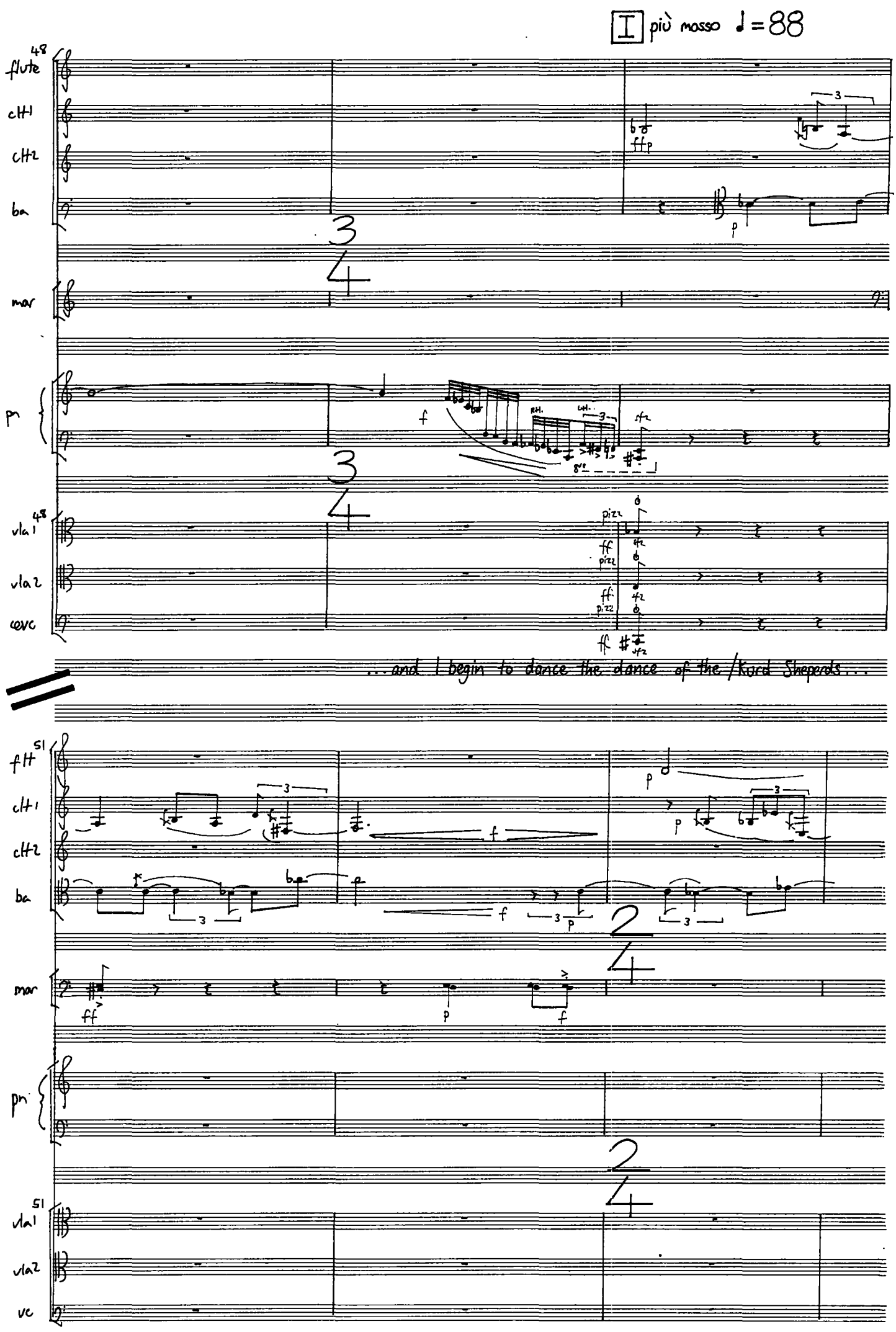

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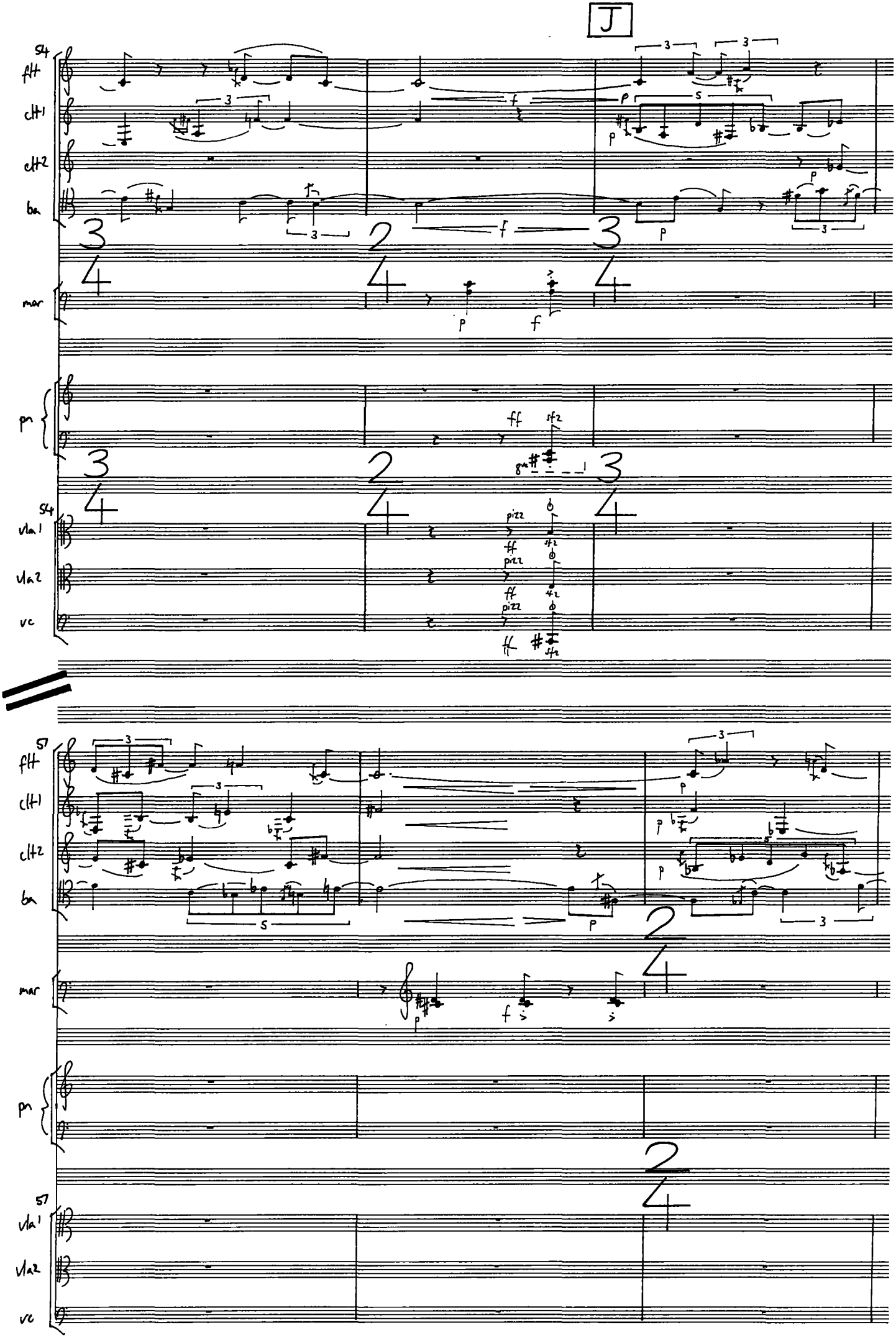

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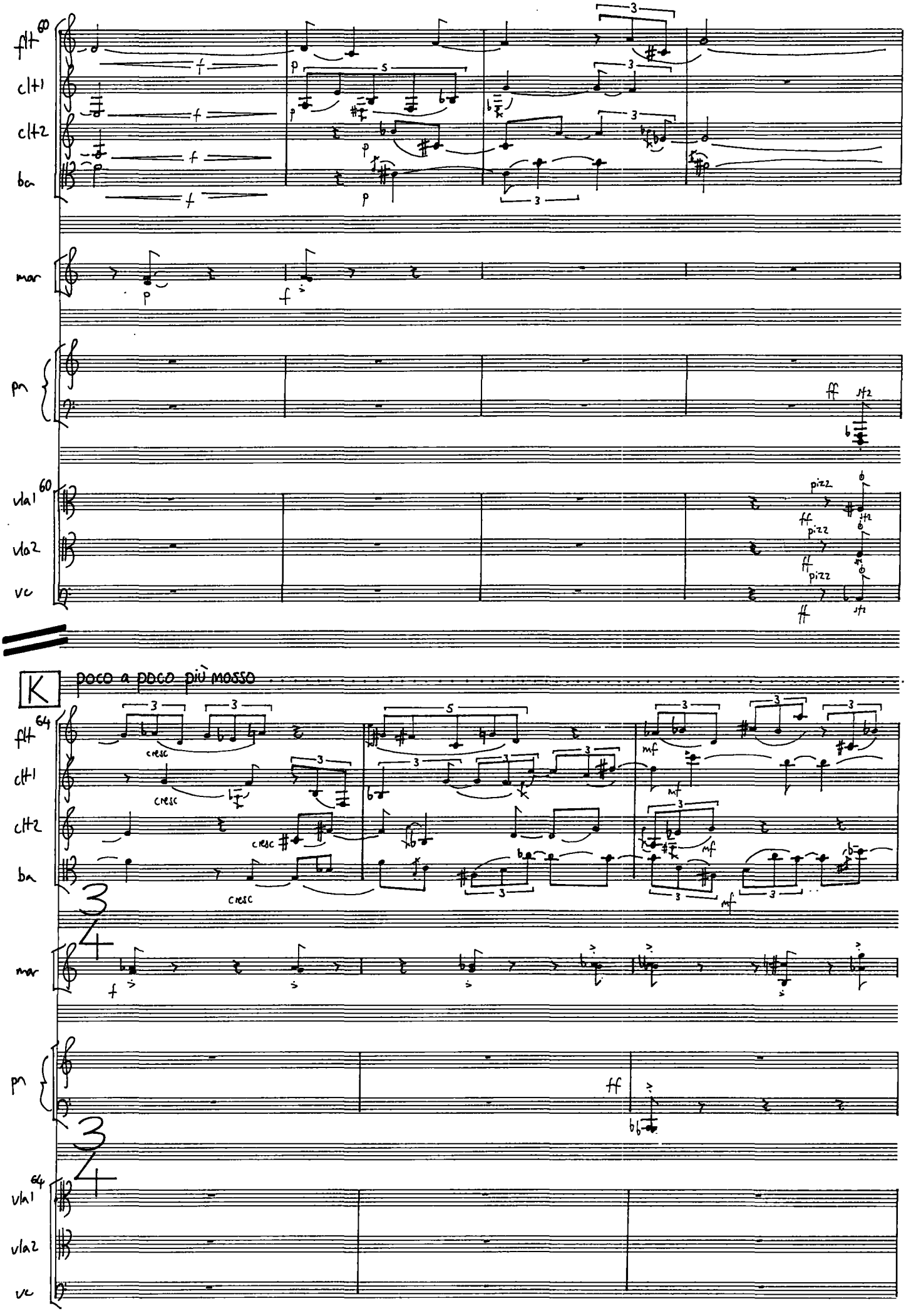

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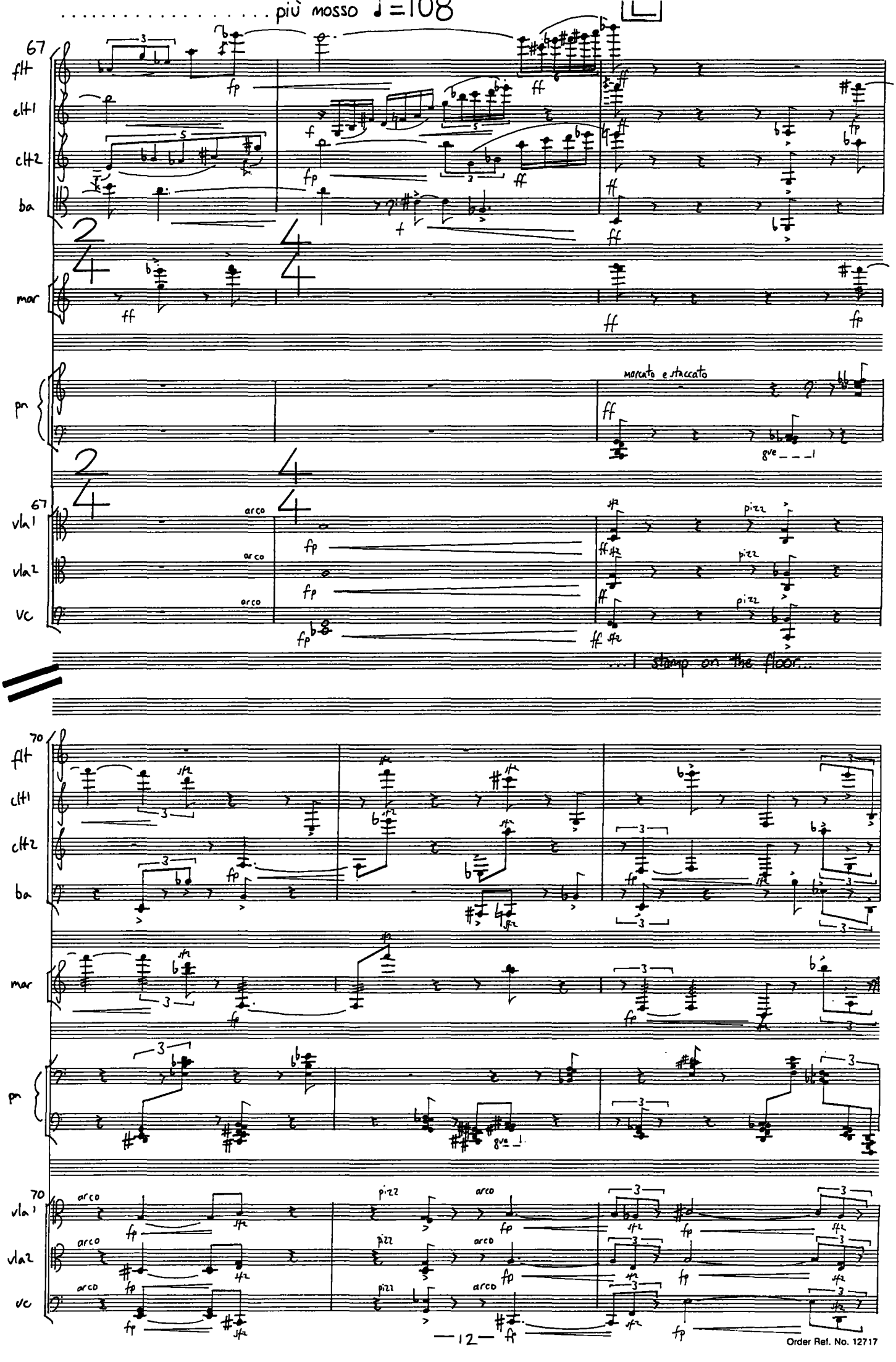

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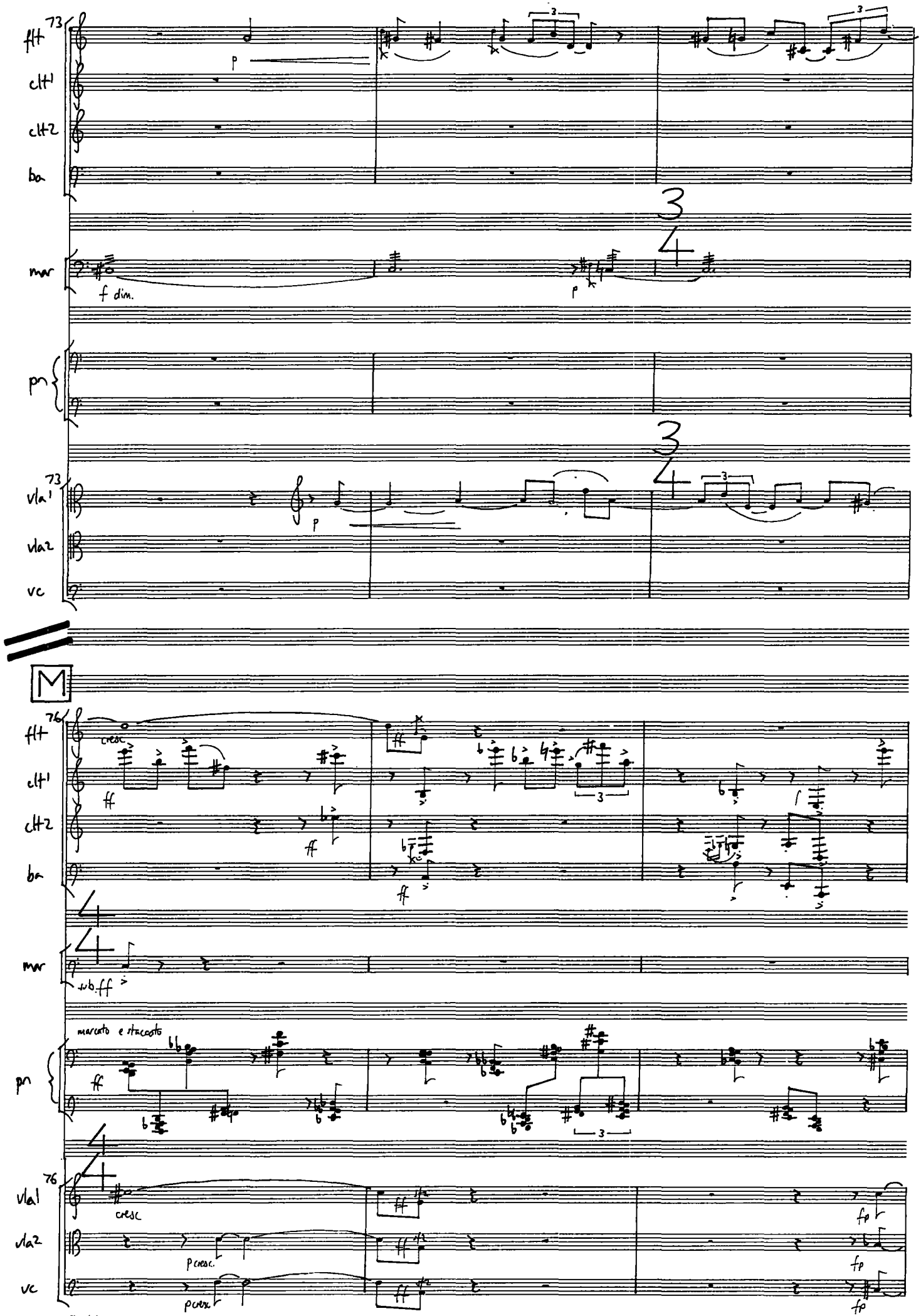
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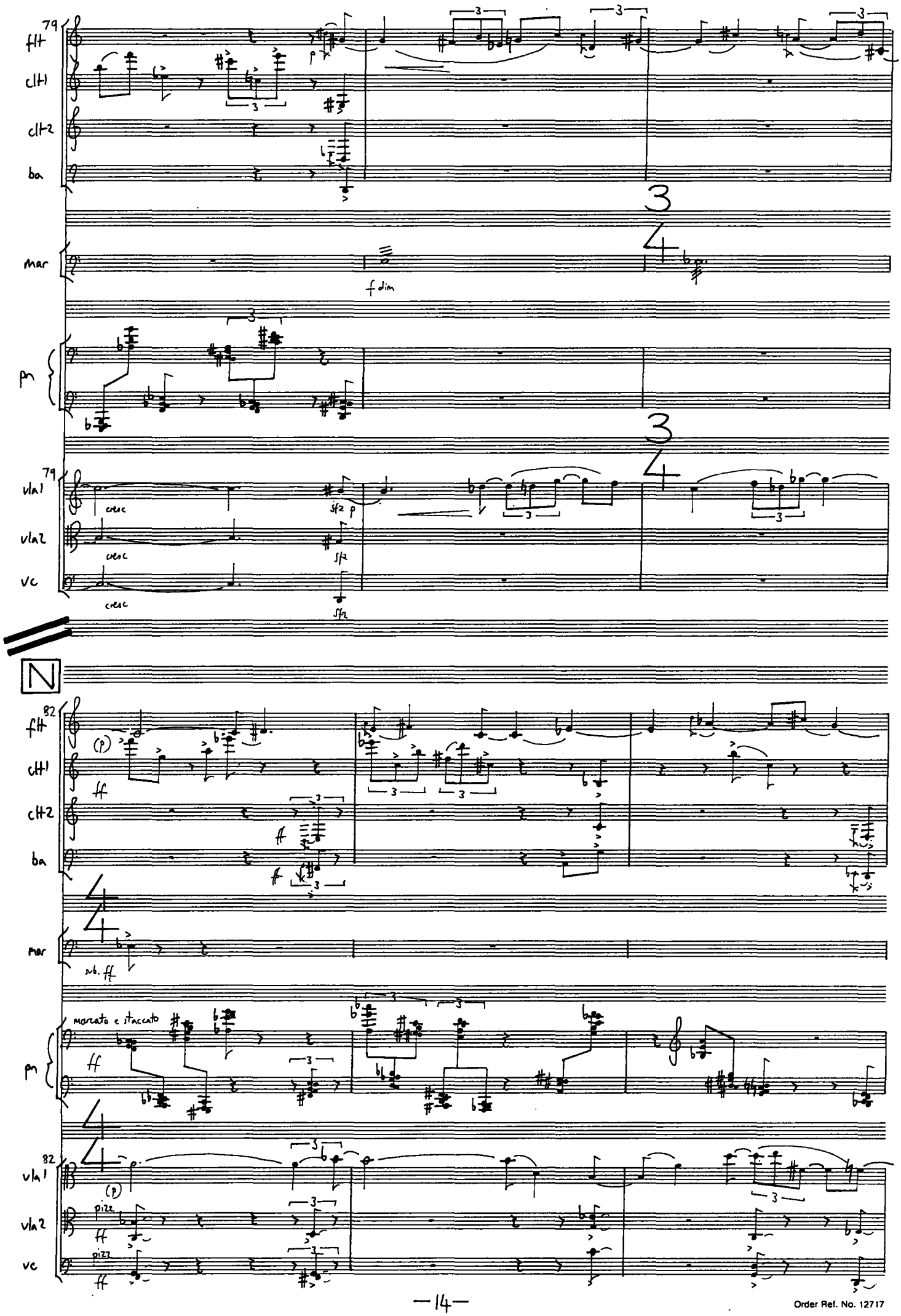

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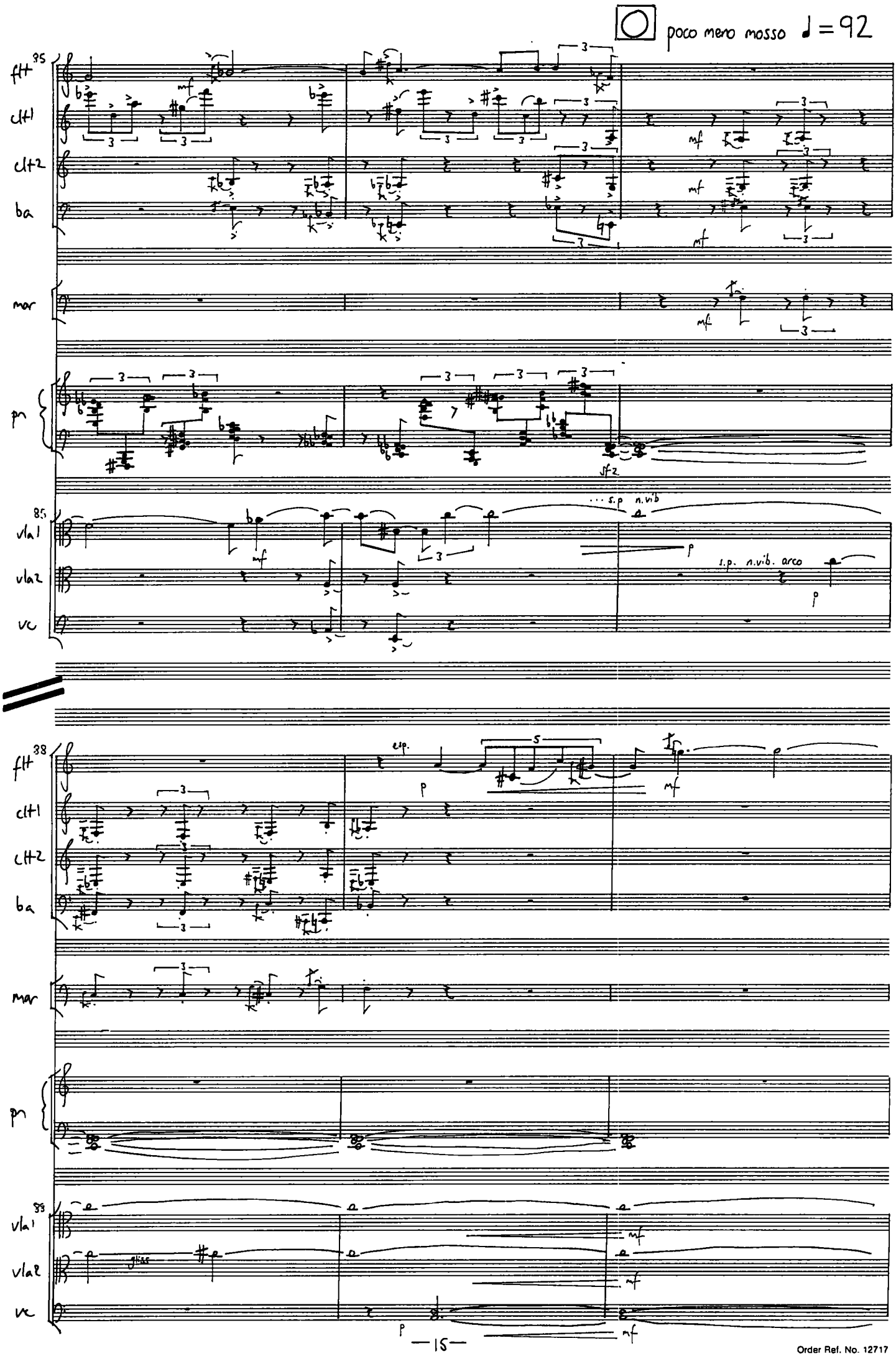

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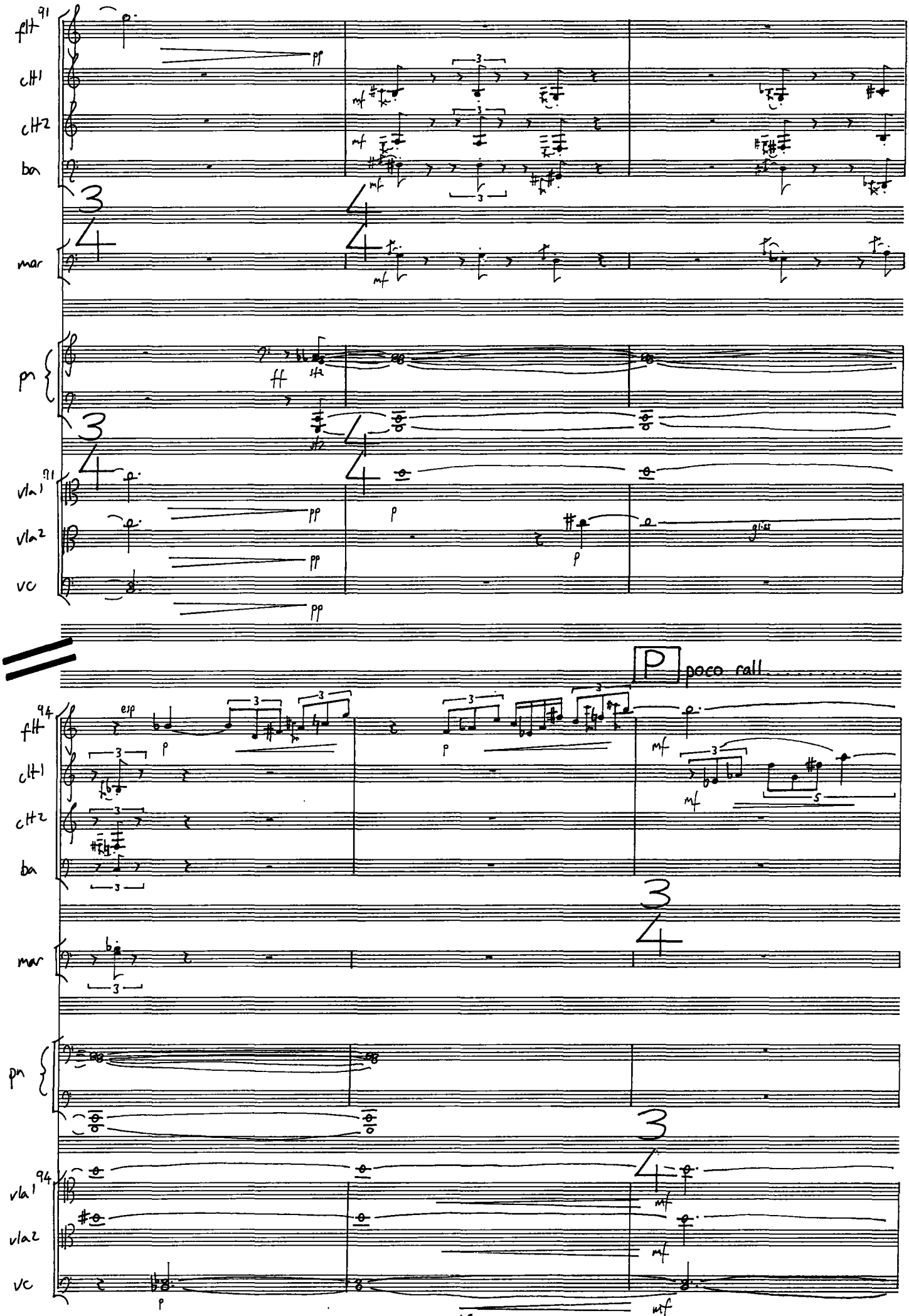

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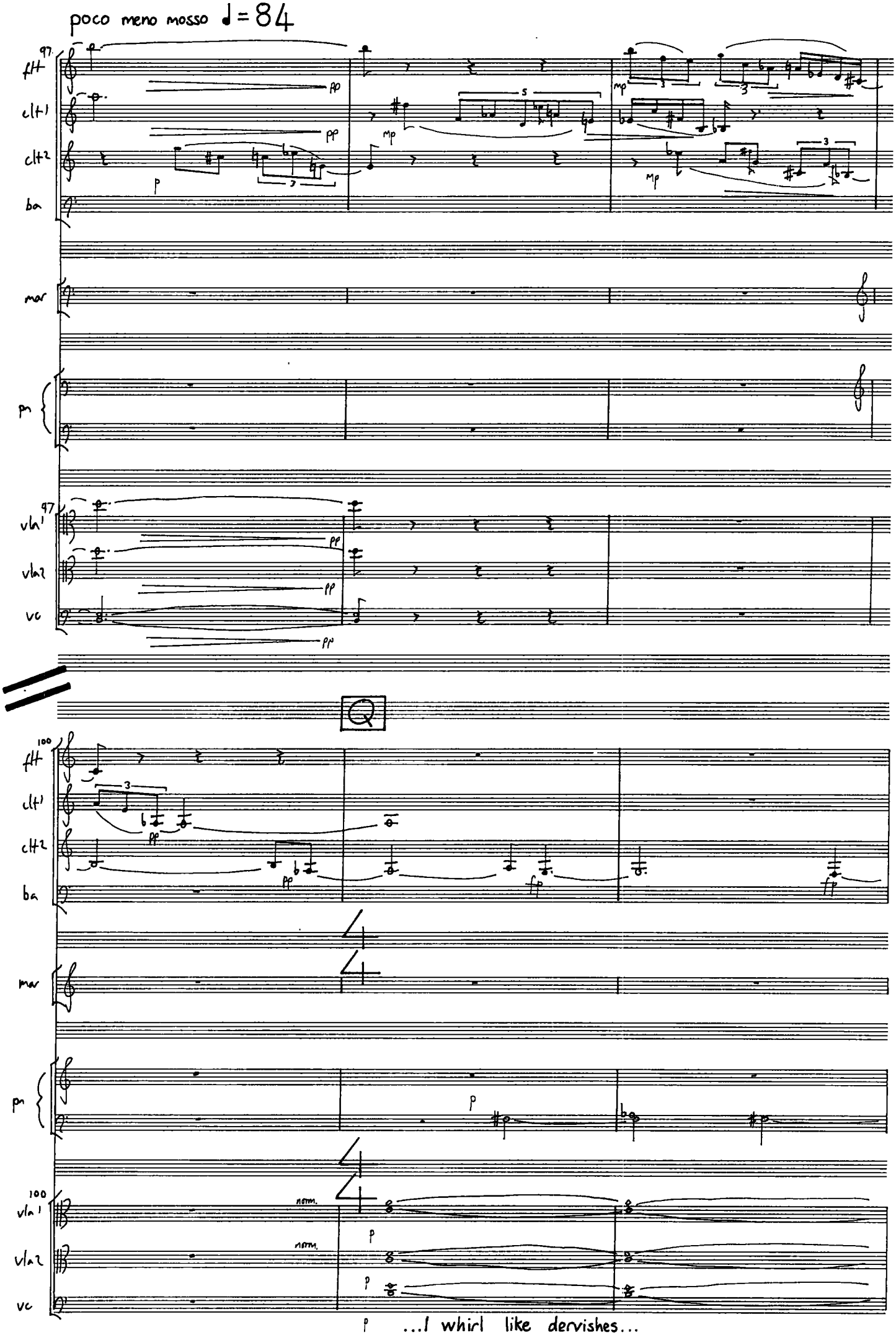

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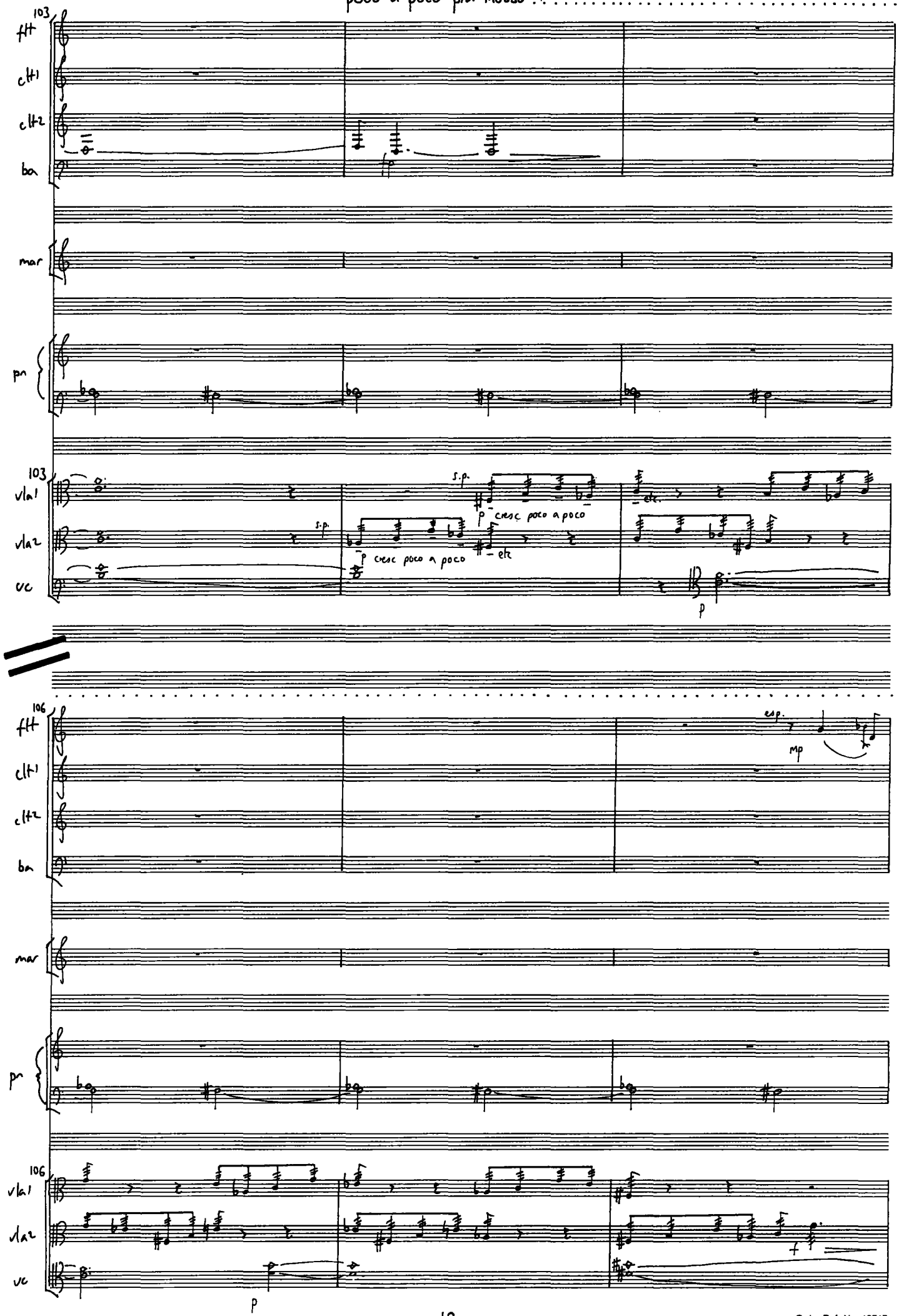

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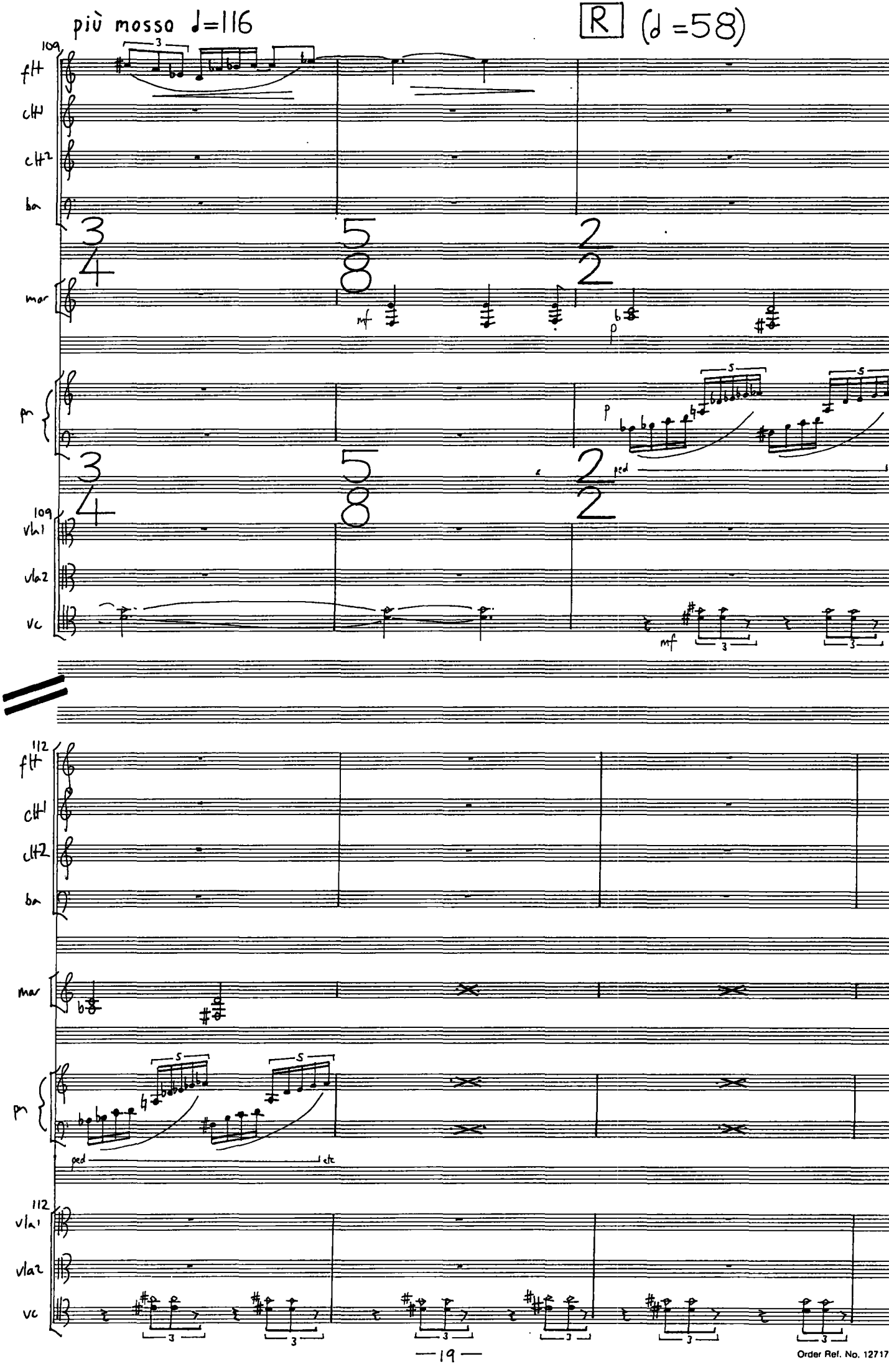

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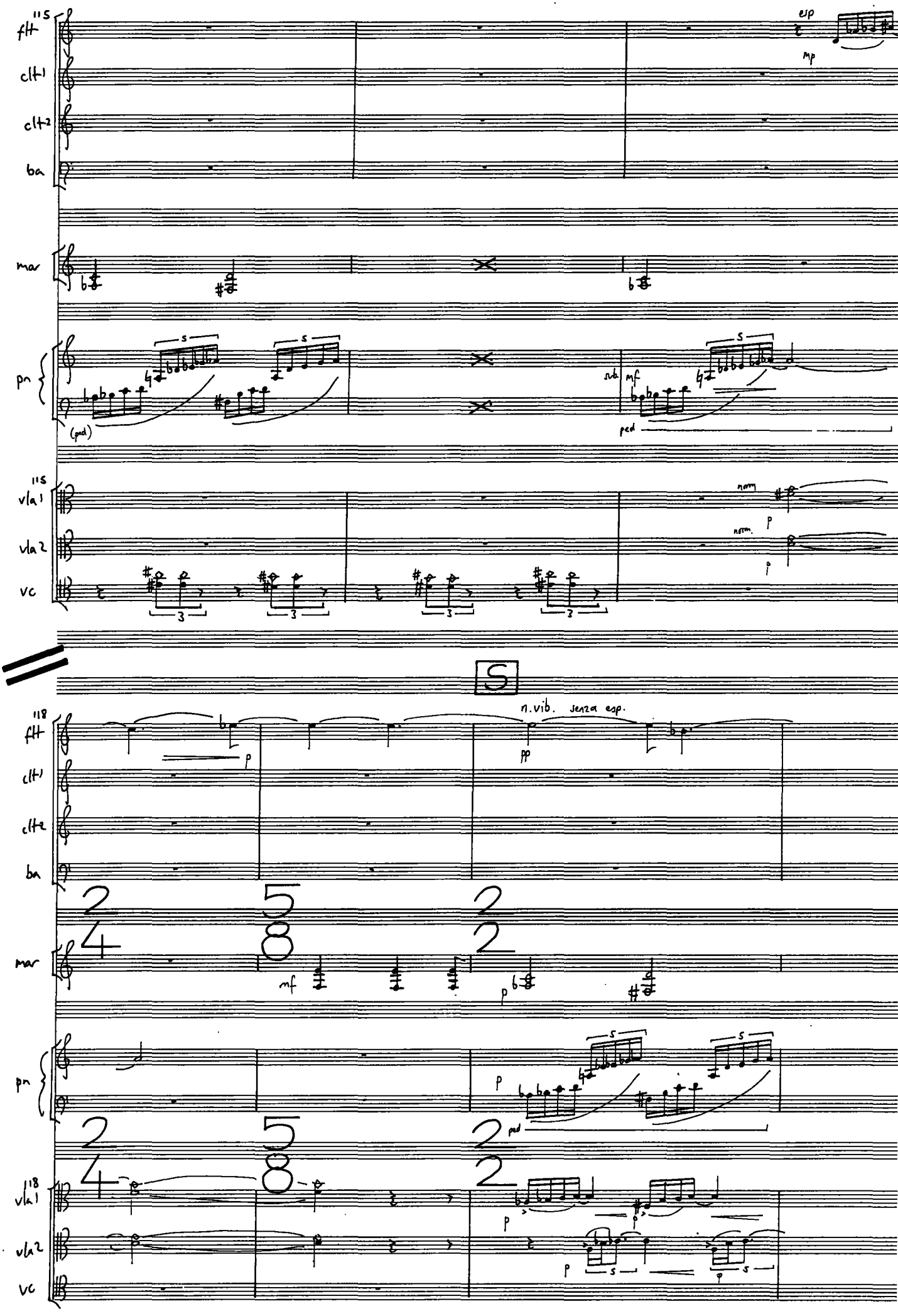

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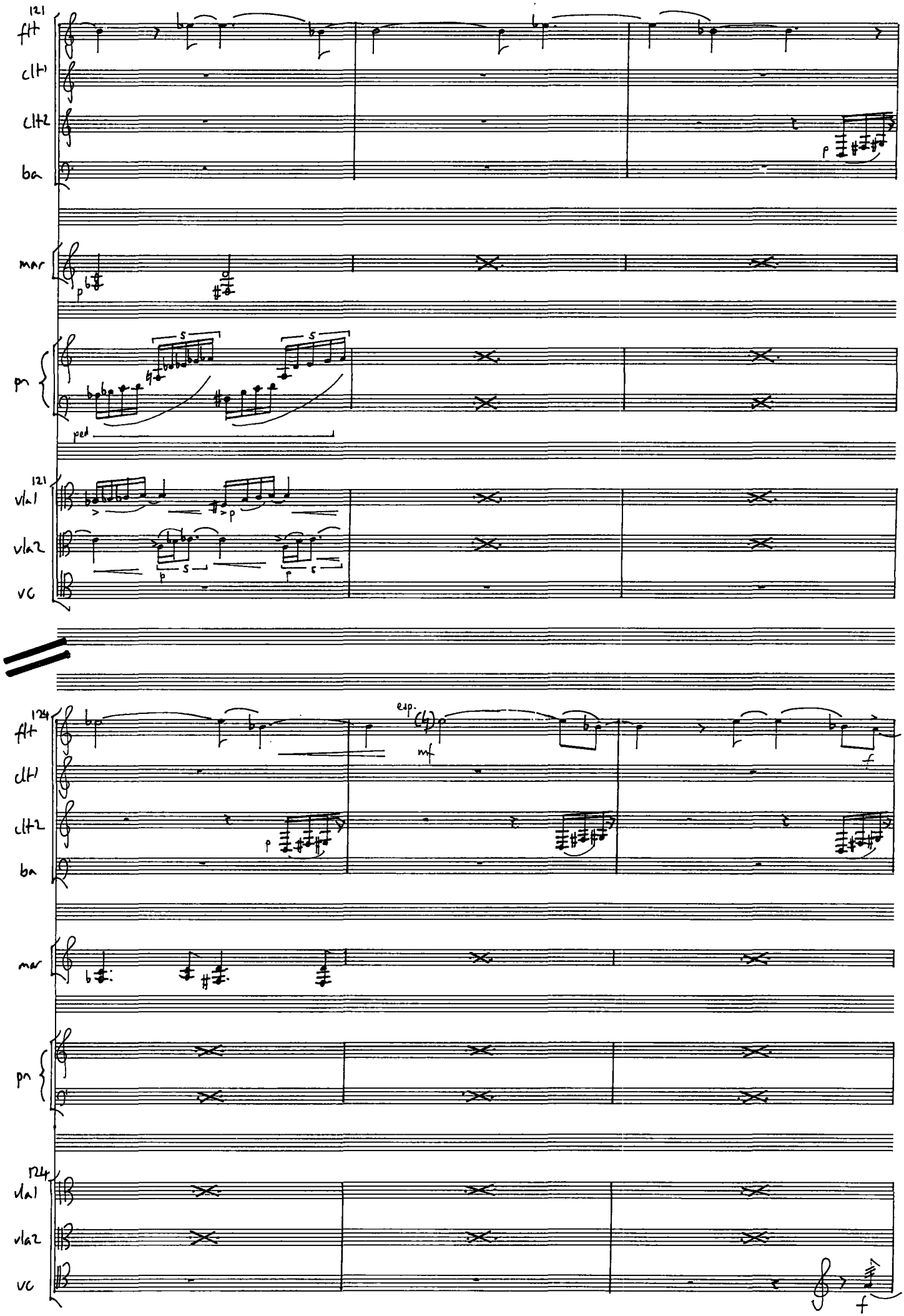

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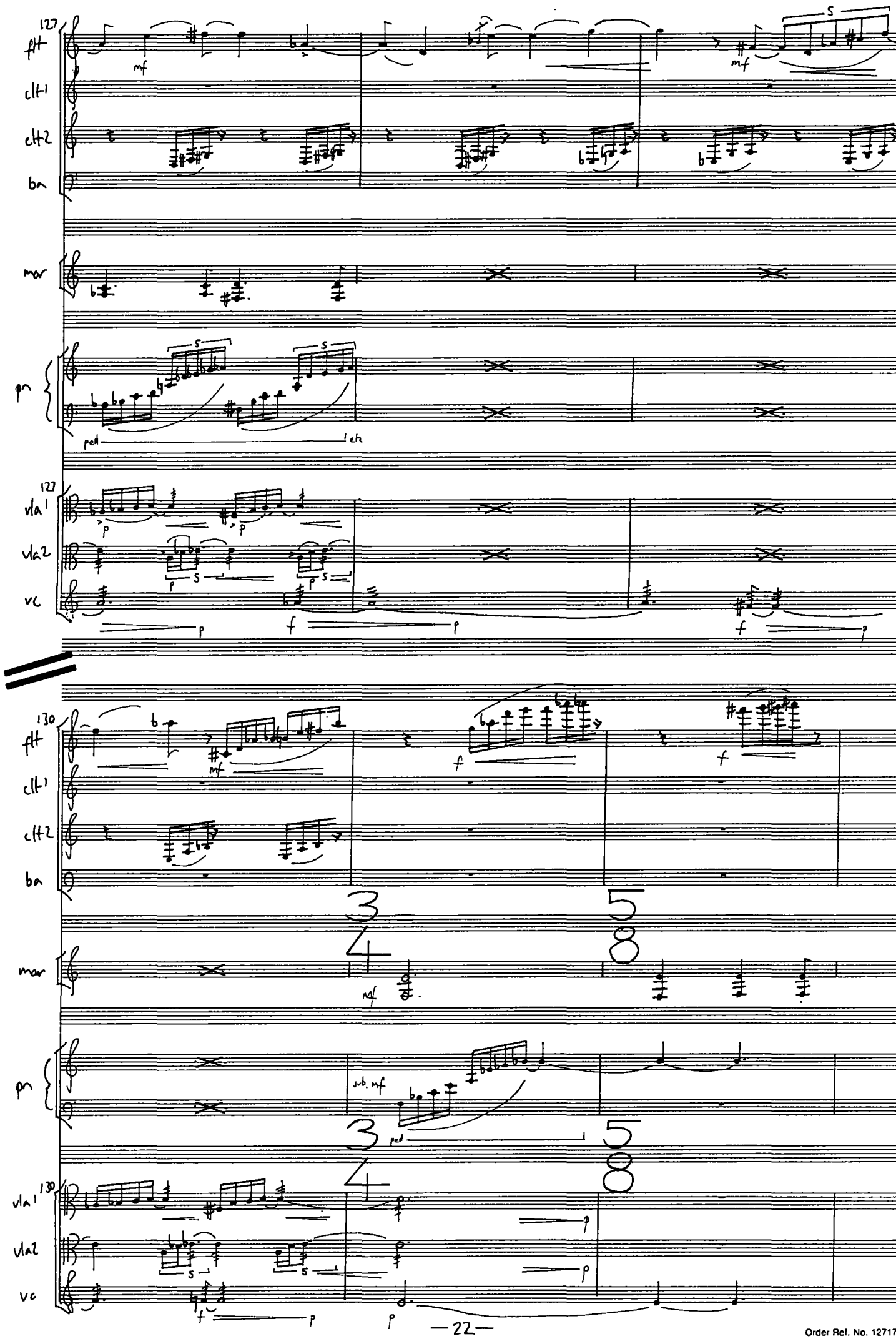

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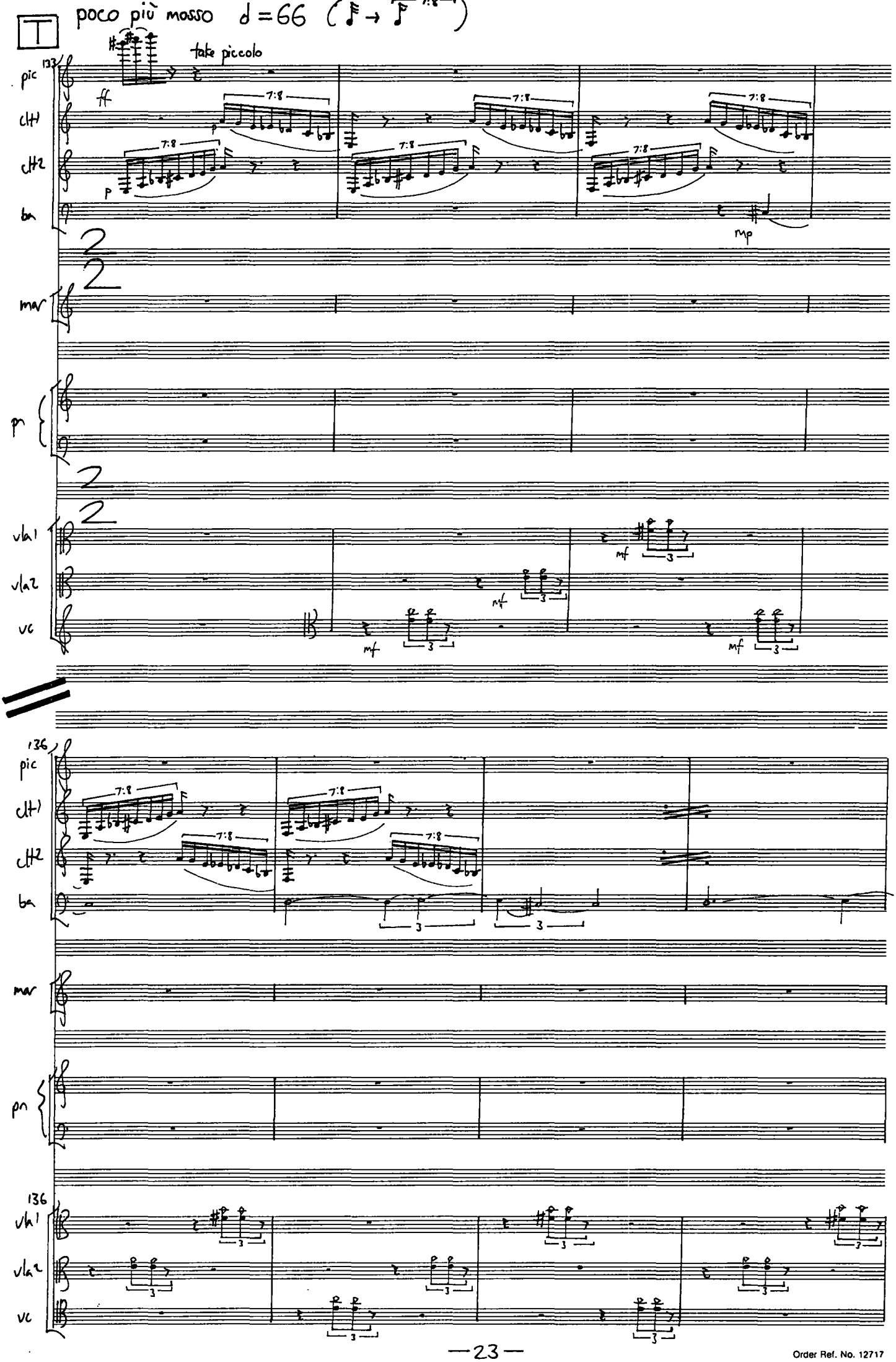

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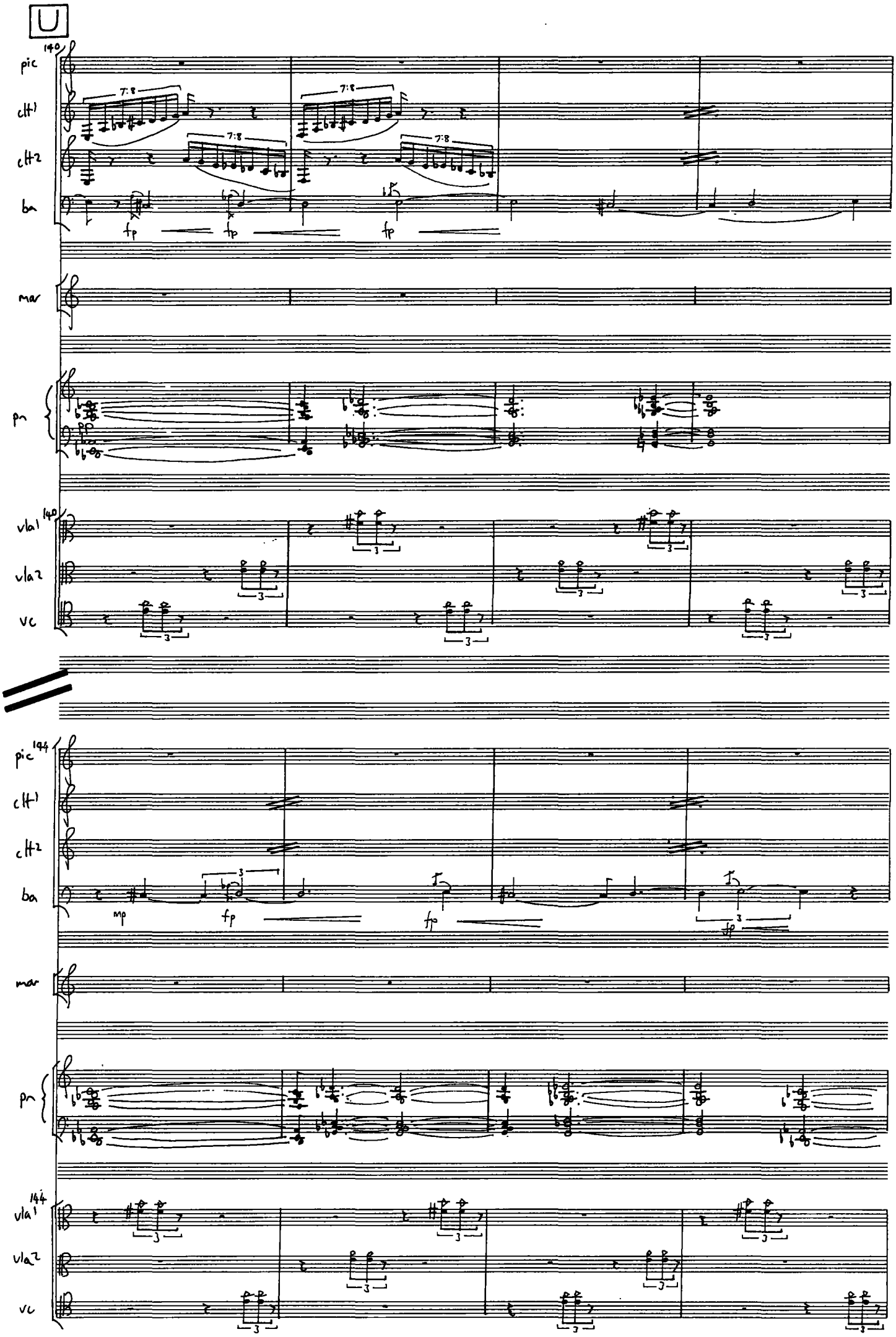

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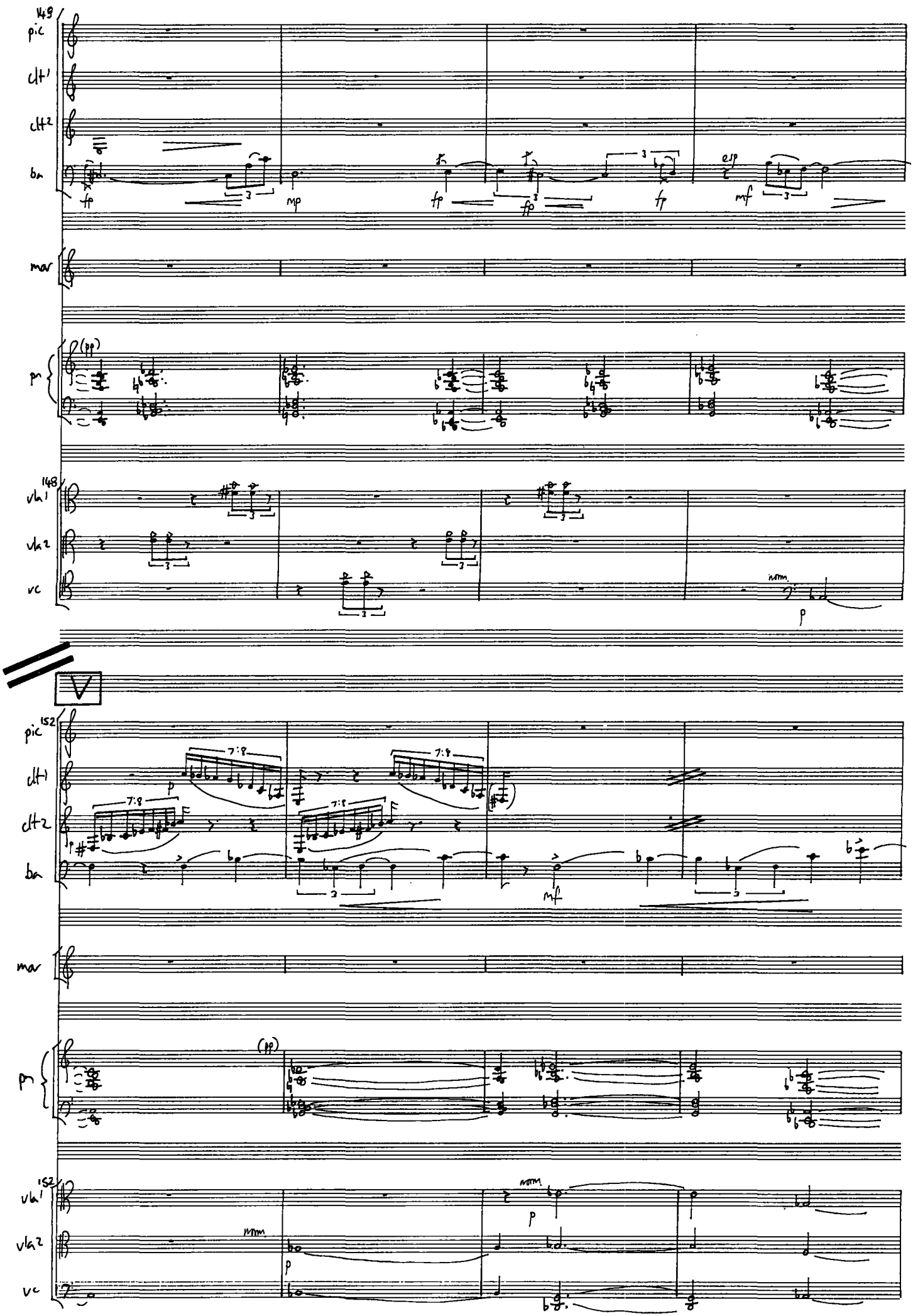

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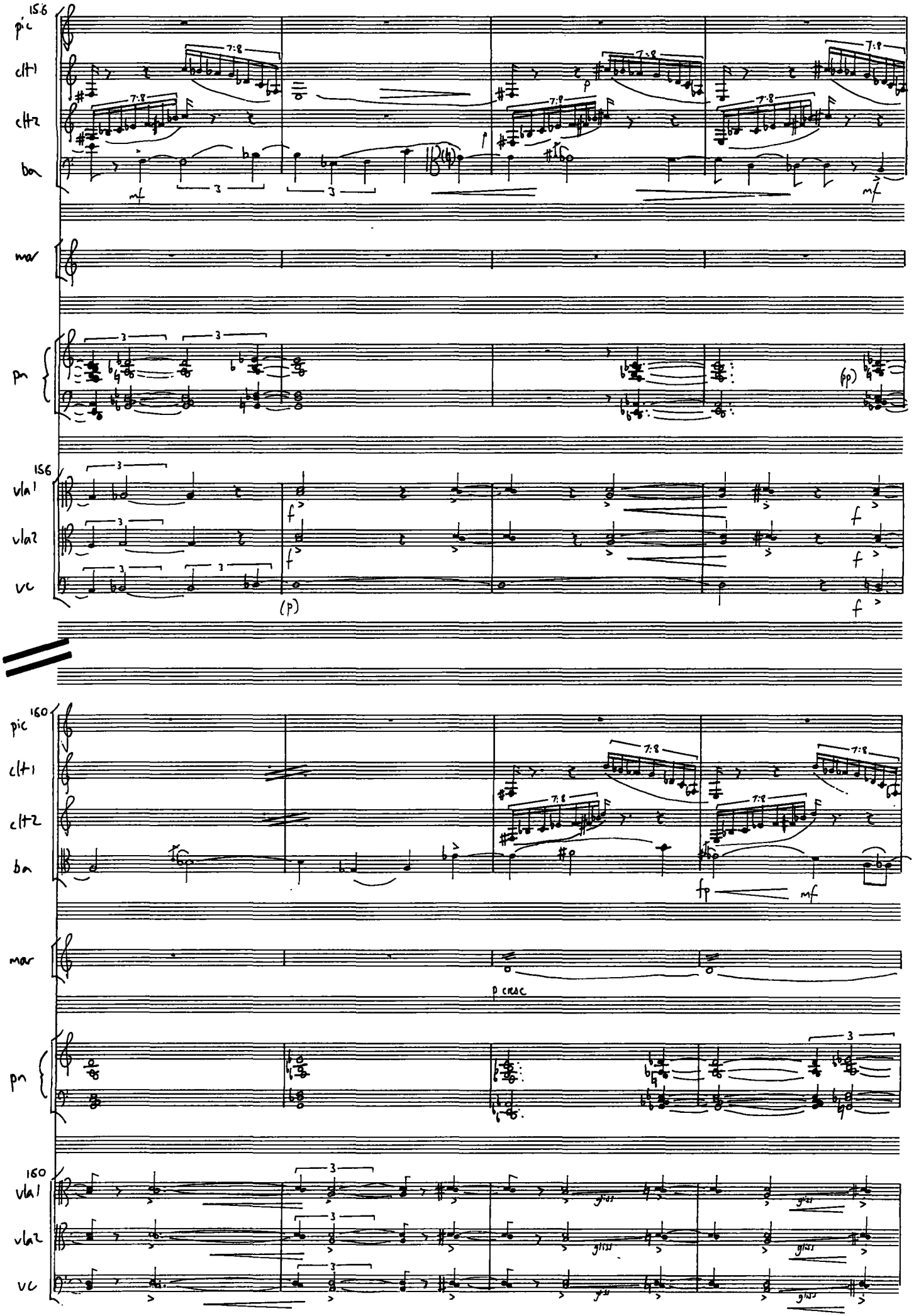

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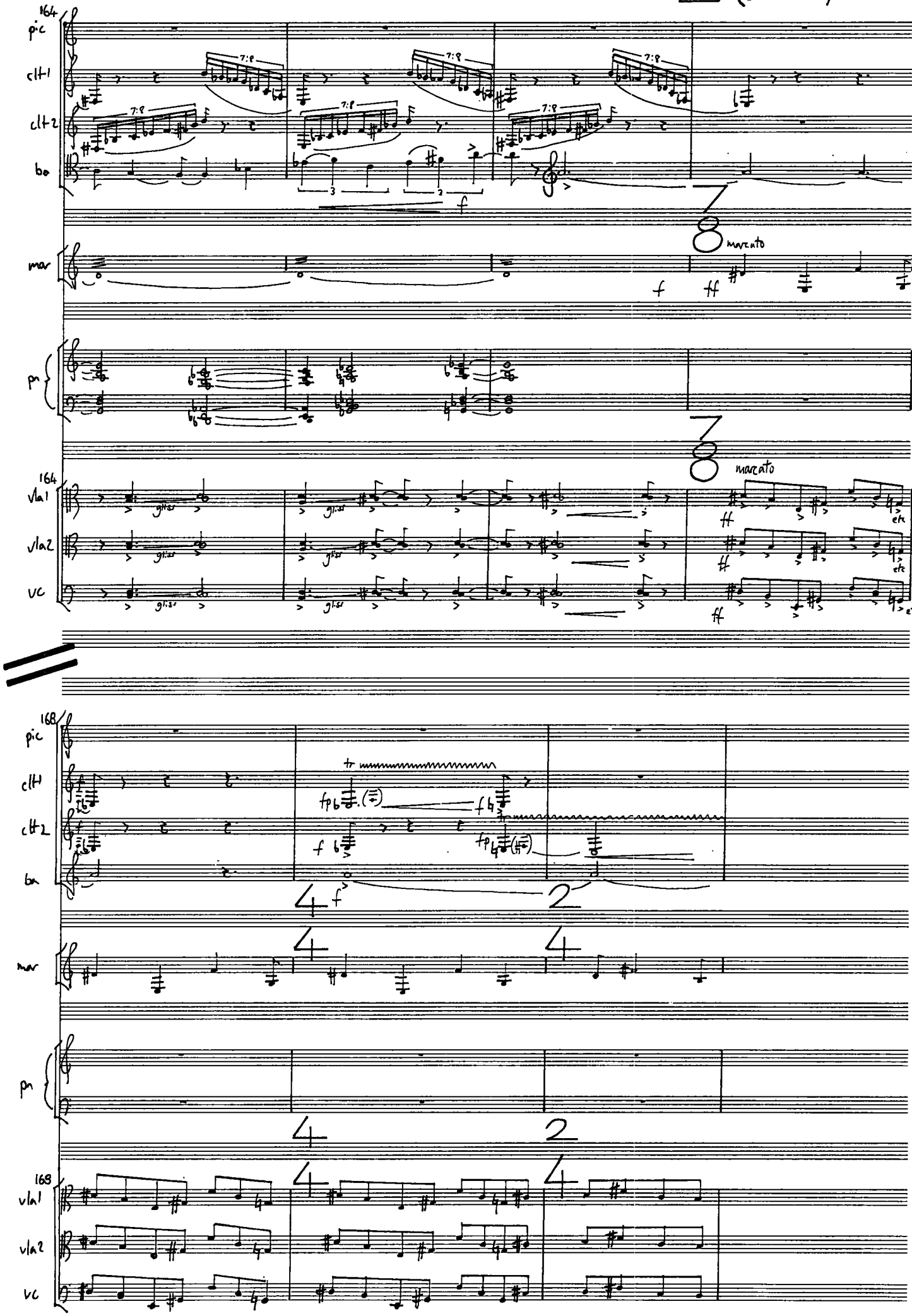

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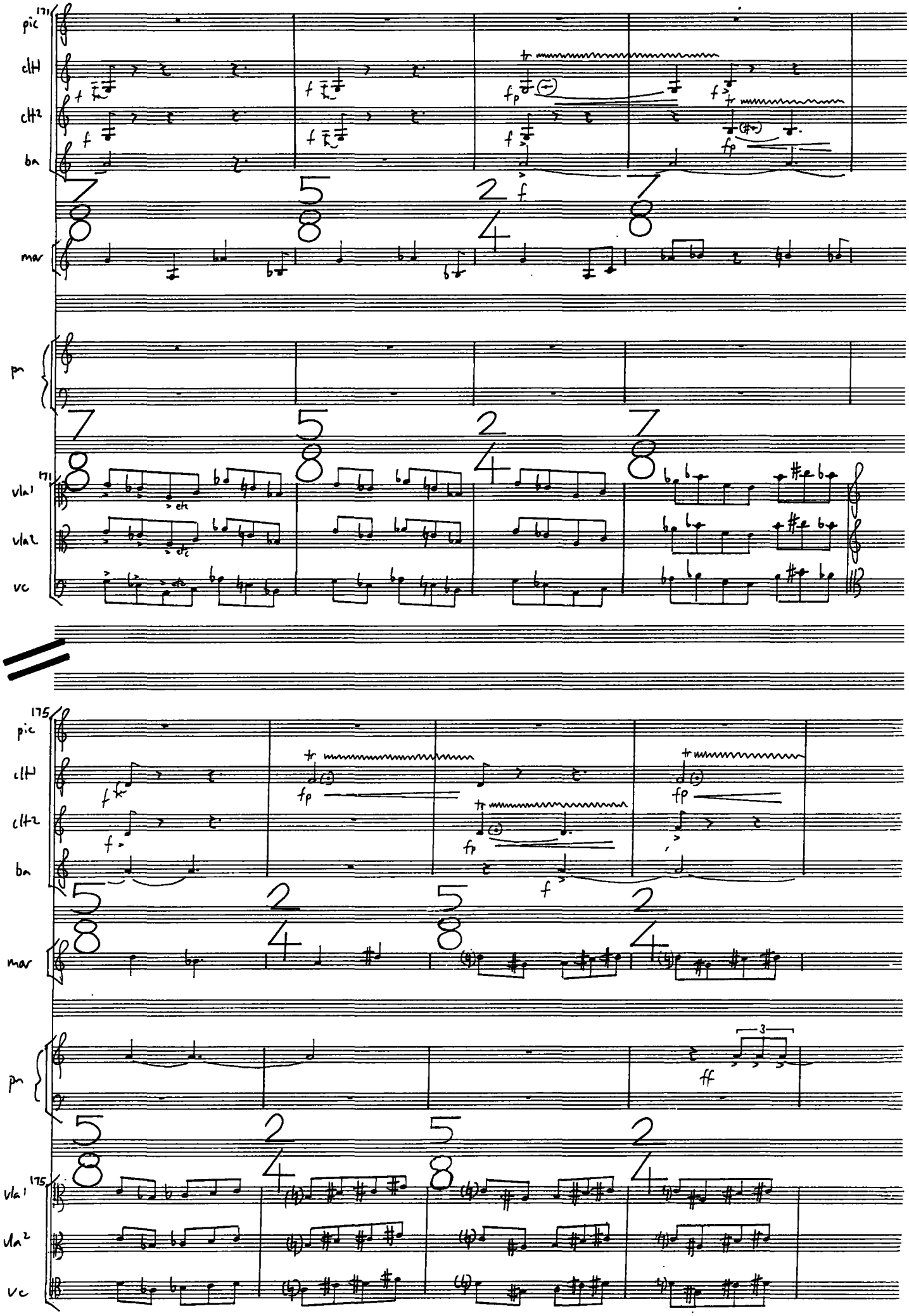

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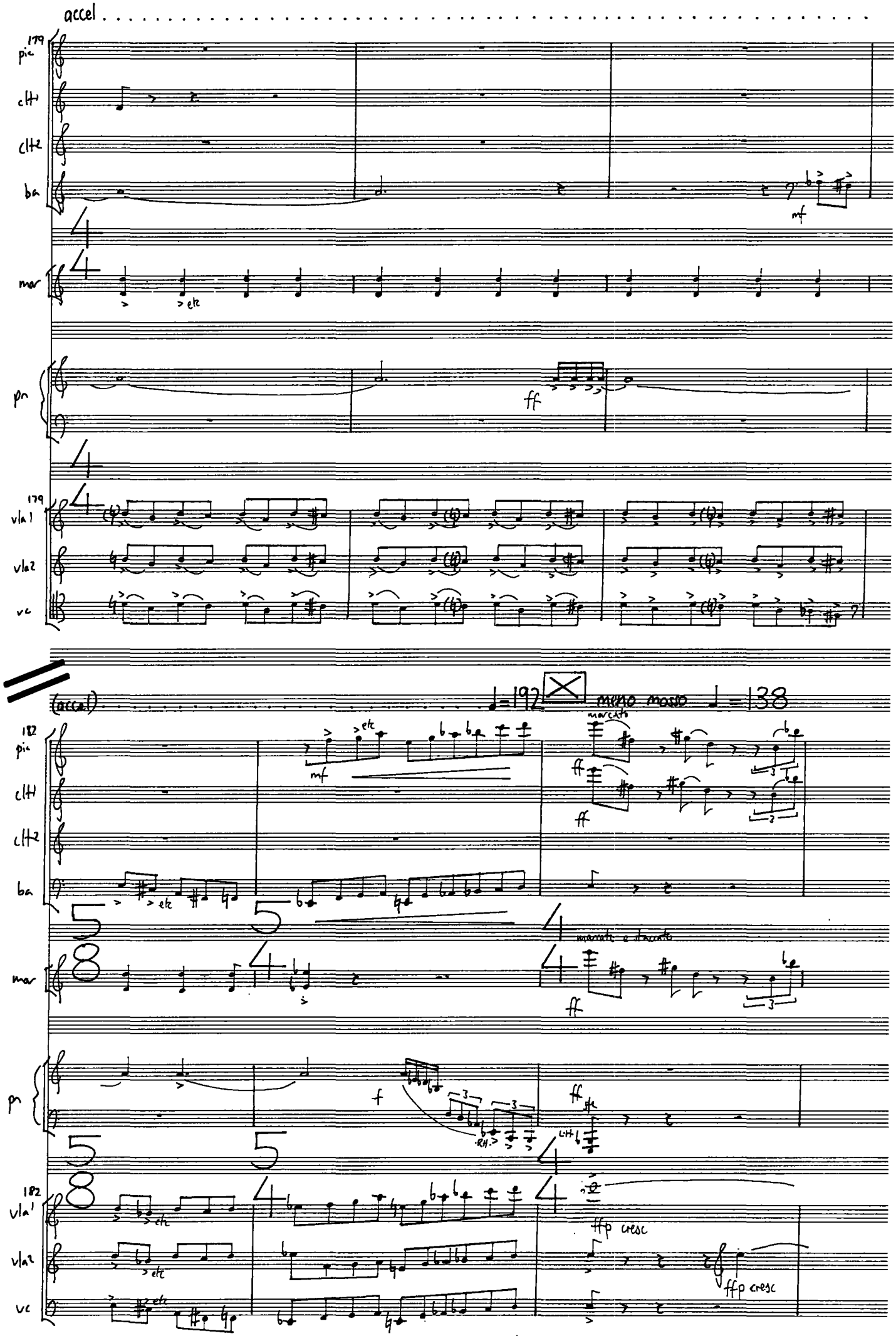

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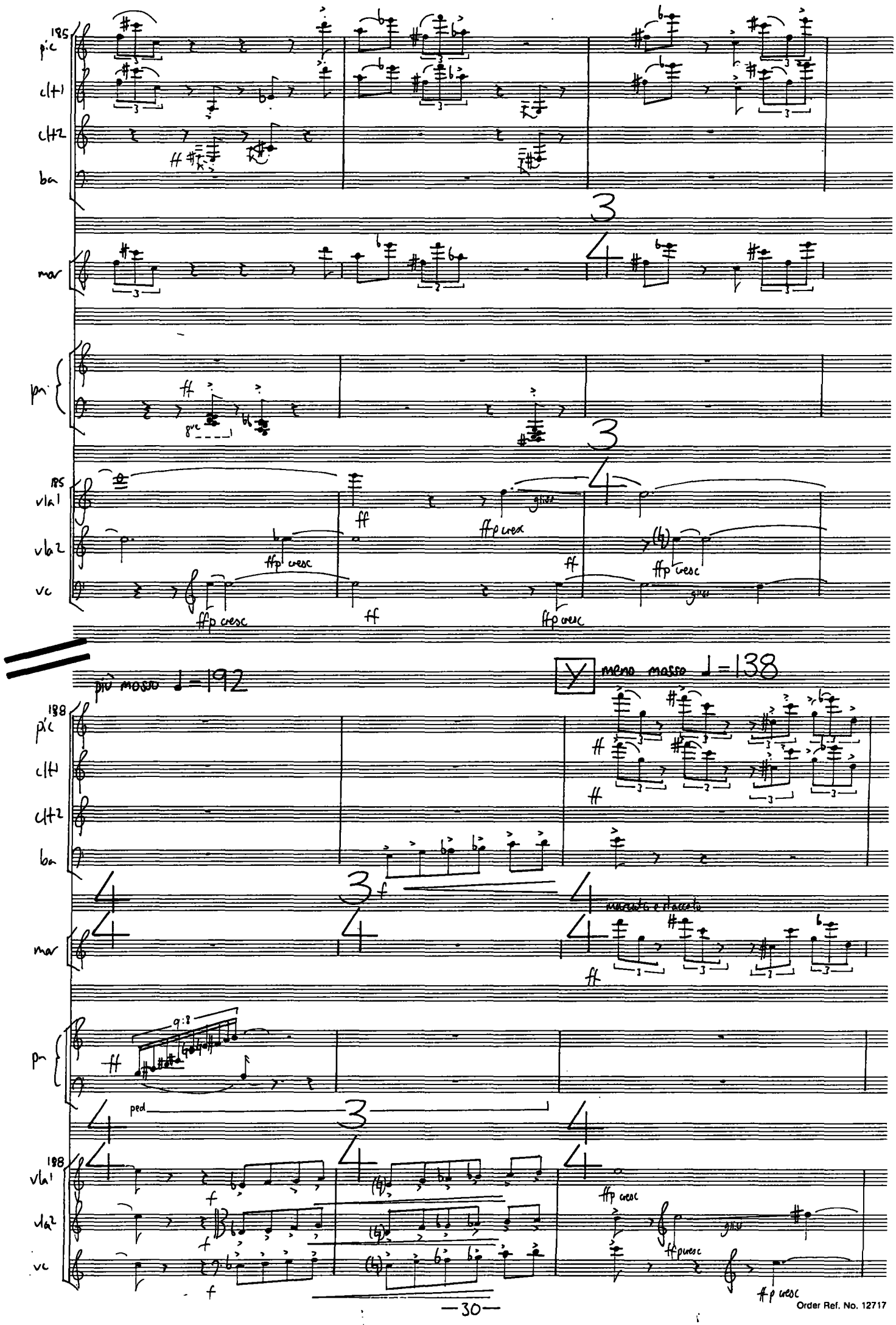

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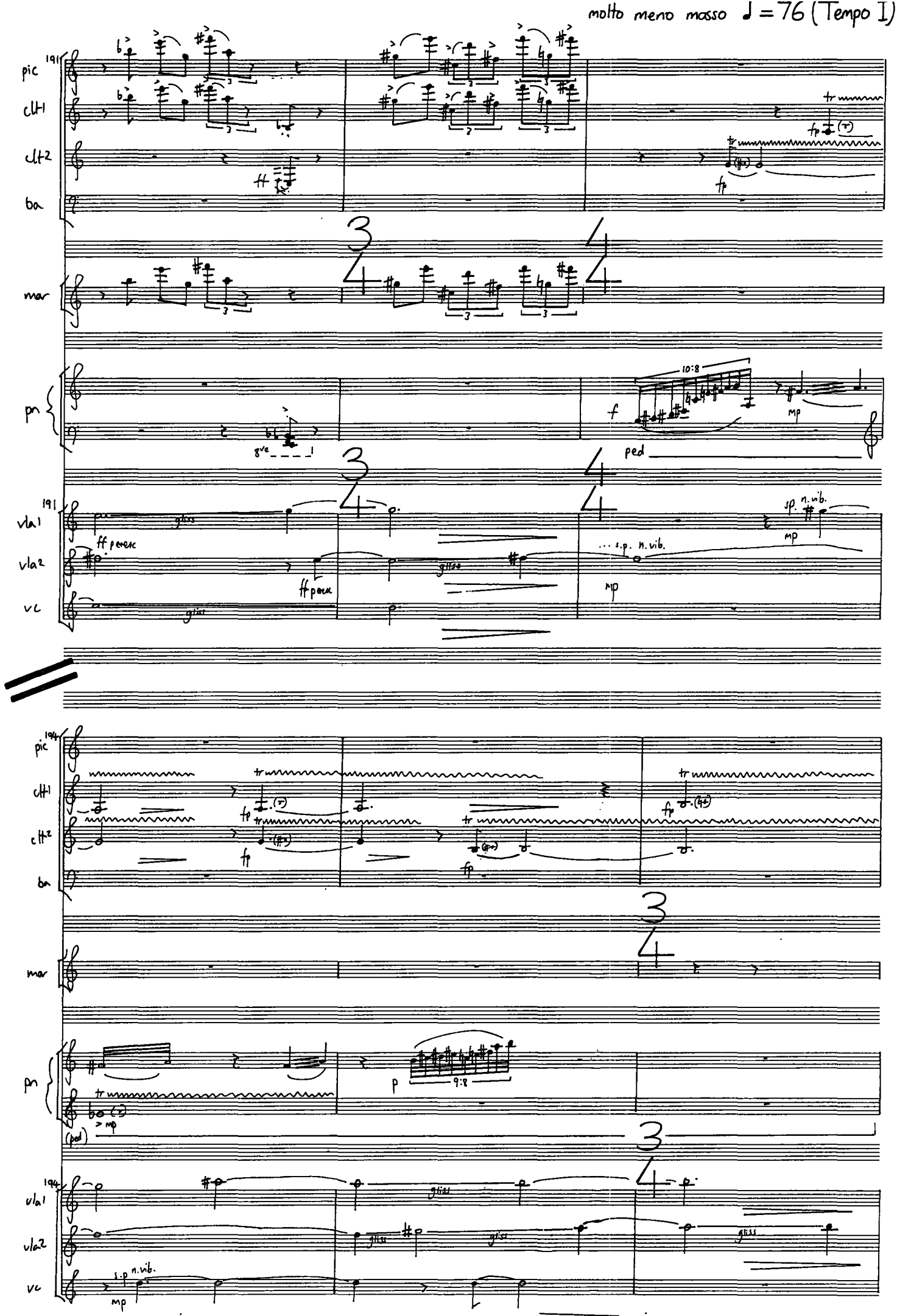

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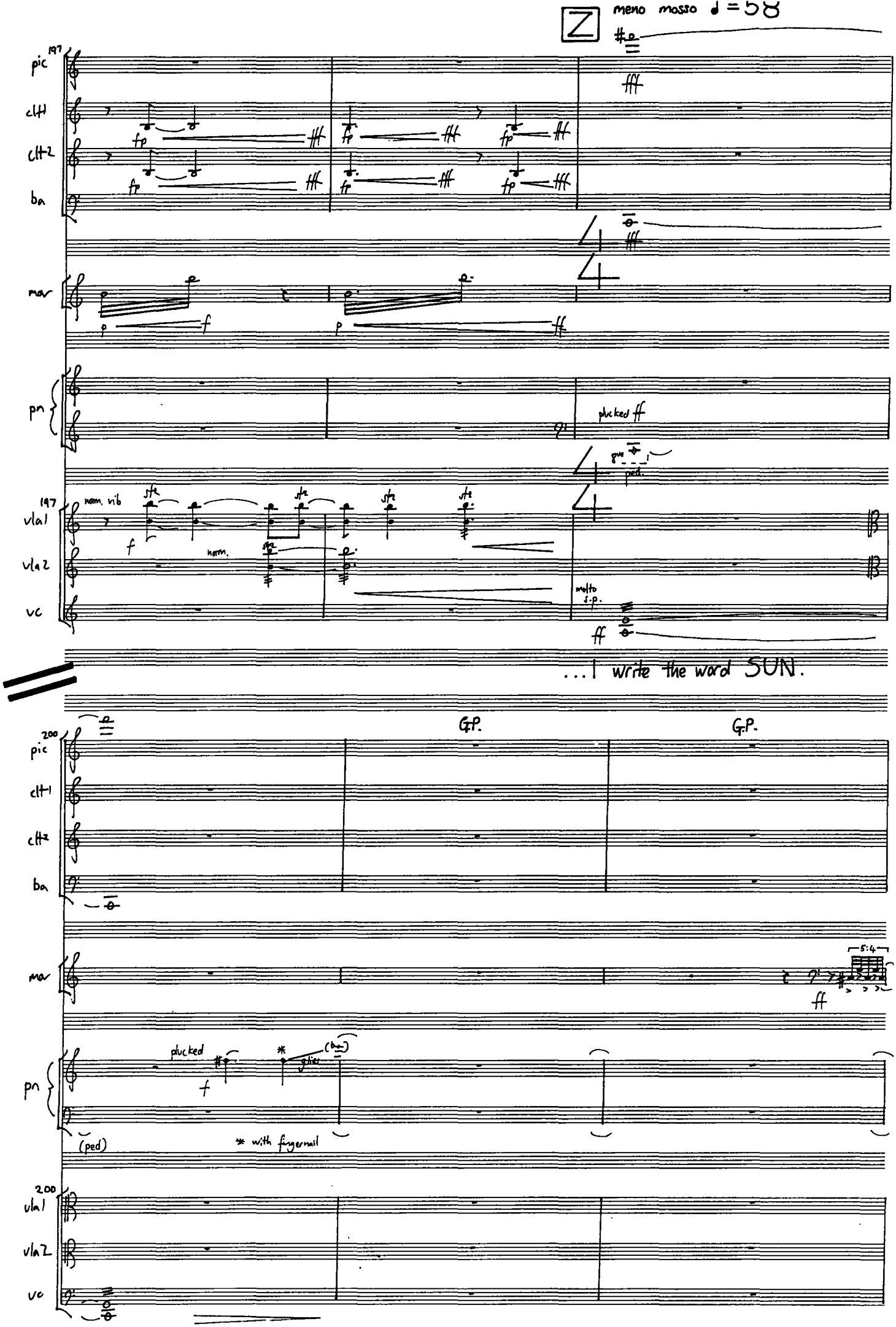

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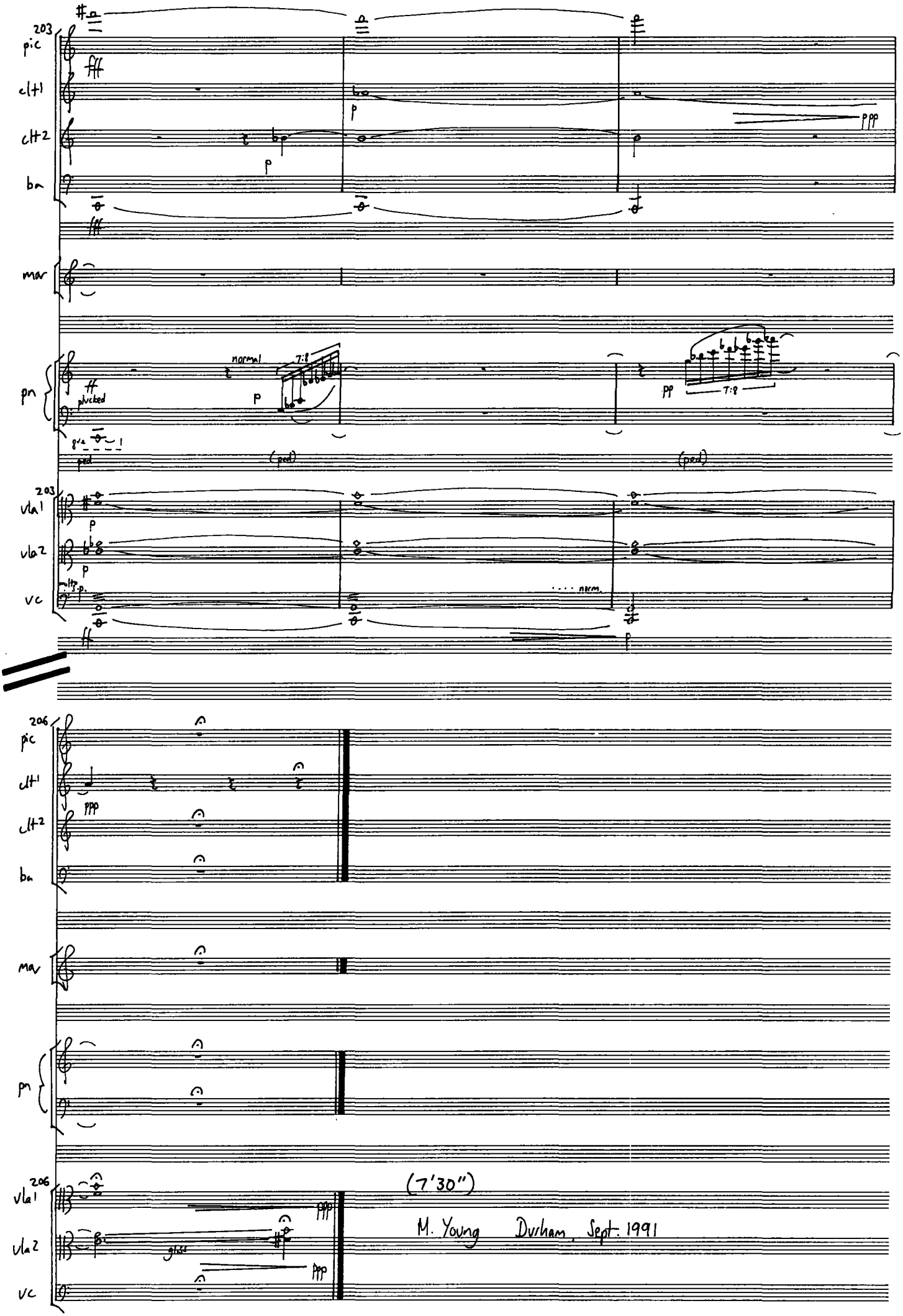
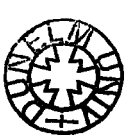


Order Ref. No. 12717

Michael Young

PhD in Composition, 1994

Commentary



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Introduction

The nine works in this portfolio were composed during the period 1990 - 1994, and are presented in chronological order. The composition of these pieces has presented an opportunity to experiment; contrasts can be seen in the approach taken to musical style, form and compositional method. The instrumentation, duration and technical requirements of the pieces has been dictated mostly by an opportunity for performance, either in the form of a professional workshop or performance, or a university concert; two works (the **String Quartet No.2** and **Chamber Concerto**) were written without these considerations. As a whole, the portfolio represents my development over the past four years as a composer.

The most significant challenges in writing music are perhaps to develop an economy of means, coherence in both the structure and style of a given work, and to find a musical voice which is genuinely personal. The process of composition also involves a balance between intuitive musical instinct and self-expression, and the need for structural order and discipline. When beginning this PhD project, I was concerned with the role of the first aspect, having found in the past that a preoccupation with musical process, rather than musical expression, was frustrating. The earlier pieces in this portfolio are consequently quite free in their treatment of form or pitch organisation. The later works, in particular the **Chamber Concerto** and **Colloquy - Discord**, attempt to apply more stringent controls to musical materials and structure, while preserving a direct, communicative language.

Several compositions are closely related to a poetic text, although only two actually involve word-setting. I have found poetry to be a strong source of musical inspiration; the basis for five of the pieces was to find a musical means to express a poetic image. All the texts I have used are taken from 20th Century literature (with the exception of a verse by Emily Dickinson), and they are perhaps similar in some other respects. These poems were attractive because of their own intrinsic musicality, the absence of a simple narrative meaning, and the use of vivid imagery which can be interpreted in an abstract sound world; images relating to colours, shapes, movement, or ideas of growth and decay.

There are number of conscious musical influences in my approach to compositional method, but these are mostly specific to individual pieces. **In the Rainforest** and the **Two Nocturnes** are directly referential, the first transforming material taken from a source (Amazonian drumming) and the second appropriating and distorting elements of a 19th Century Romantic style. Some pieces explore a method adapted from a particular musical work, but without any indebtedness in terms of musical content. For example, the pitch structure of **She tells her love while half asleep** was influenced by the techniques used in Boulez's "Le Marteau sans Maitre", and the dense motivic treatment in Schoenberg's String Quartet No.2 (Third Movement) which explores the evolution of four distinct themes, was a model for the second movement of the **String Quartet No.2**.

Modern jazz, such as that of John Coltrane or Ornette Coleman, is a more general influence which has gradually become more conscious. The most exciting

characteristics of this music are perhaps its melodic invention and virtuosity, (often in the context of static underlying harmony) and the strong momentum of rhythm, in which musical pulse can be implied more than clearly stated, (and is often dislocated or even abandoned altogether). Also, the structures to be found in jazz are in essence extremely simple, often consisting of repeating choruses/verses with a fixed harmonic scheme; however, through the avoidance of literal repetition, the resulting musical form can be quite complex. In particular, the **Chamber Concerto**, **String Quartet No.2** (especially Movement 1) and **Given Notes** explore these characteristics, although pastiche of any kind is avoided.

Acknowledgements

I would like to thank Prof. John Casken and Dr. Peter Manning for their guidance and support during the composition of these pieces, and the completion of the portfolio.

I would also like to thank Mr. Bryn Jones, Director of Stiwdio Cantor at UCNW, for technical assistance in the recordings of **Two Nocturnes** and **Colloquy - Discord**, and Prof. John Harper, for the financial support of UCNW in the performance of **Given Notes**. I am also grateful to the Society for the Promotion of New Music, for arranging the performances of **She tells her love while half asleep** and **String Quartet No.2.**

1. In the Rainforest

1.1 Introduction

This work is composed for computer generated tape, using the synthesis program C Sound to create and manipulate all the sounds heard. The impetus for the piece was the news coverage of the rapid destruction of equatorial rain forests, a problem which was receiving much media attention at the time of composition. There is no extra-musical program as such, although rhythmic ideas are drawn from the ritual drumming music of North Brazil, an area of South America to which the issue is of special relevance. The intention behind the composition was create a musical "environment" entirely through synthetic means, in which referential (or quasi-instrumental) sounds occur in opposition to patently artificial ones. This contrast is accentuated by a simple division of the musical material into two types; rhythmical and repetitive, or arhythmic and gestural. The conflict between the two could be given a symbolic significance, of natural elements being threatened and overcome by artificial man-made forces ; however the overall impression of the piece should be of contrivance and mechanisation, rather than an evocation of jungle or environmental sounds.

1.2 Sound Generation Techniques

C Sound employs two data files to generate sound, each file performing a function analogous to a traditional role in musical performance. The "orchestra" file is used to create a set of artificial instruments; the sounds which these can produce may be of a fixed or a potentially flexible nature, depending upon the number of variables involved. A "score" file sends a series of basic instructions to each instrument, such as start time and duration of note events, but may be used to send data controlling the more complex behaviour of a sound over time. The orchestra file used in this composition is shown in example 3 at the end of this chapter.

The principle sound synthesis method used is Frequency Modulation, invoked by the command **foscili** in the orchestra file. This is employed to create a range of drum and bell sounds in which a number of controlling variables are involved. The number of side-bands (in effect, overtones) which are produced by the modulation depends upon the amplitude output of the modulating oscillator, which may be controlled over time. The penultimate variable in this command (**kindex**) is the controlling signal, determining the index of modulation (approximately equal to the number of side-bands produced). This can produce a realistic bell or drum sound, with a strong attack containing many overtones (such as instrument 5) or a more artificial "reversed" bell sound which gradually accumulates partials (such as instrument 6). The distinctive timbre itself depends upon the ratio of the frequencies produced by the modulating and carrier oscillators; the two frequency ratios used, 55/80 and 7/5, are fixed for each instrument, and tend to give the inharmonic (rather than harmonic) overtones characteristic of natural percussion instruments. Bell and drum timbres are enhanced with the use of chorusing effects, produced by combining two FM generators of slightly differing frequency, as in instrument 1, or

through the use of the score file to combine sonorities in a similar manner. One sound, instrument 4, employs filtered noise in addition to an FM generator, invoked by the commands **randi** (noise generator) **atone** (high-pass filter) and **reson** (band-pass filter).

To transform "natural" sounds into the distinctly artificial ones referred to above, two main techniques are used. Instrument 10 involves a diverging double glissandi transformation of a bell sound; the pitch of the two **foscili** generators (the second variable, **p5**) is multiplied by the control signals **kgliss** or **1/kgliss**, which in turn are controlled from the score file by the variable **p9**, allowing glissandi of a various depths. The effect is enhanced by a number of delay lines. A gating device is used in several instruments, such as 7 and 8, which divides a continuous sound into separate pulses. These pulses execute accelerandi or rallentandi, controlled by the variable **krate**.

In addition to the basic character of the synthesised sounds, reverberation effects are controlled by instruments 11 and 12; the former is used to create reverberation throughout most of the piece, each instrument being able to send a proportion of its output signal to the reverb instrument, (controlled by the variable **p8**). This allows denser textures to be given spatial depth, each layer having an illusionary position near to, or far from, the listener. The reverb instrument is also used for momentary colouristic effects. Instrument 12 is a special device used to produce the long gated reverb sound heard in the final section. Spatial control is fixed for each instrument in time by the variable **p7** and is used in a similar fashion to the reverb effect, creating a clear textural division in the denser multi-layered sections of the piece, as well as allowing distinctive musical gestures to move dynamically across the stereo field.

1.3 Pitch system

As the composition is concerned primarily with timbre, texture and rhythmic ideas, and many of the sounds heard do not have a clear fundamental pitch, it was necessary to devise a simple pitch scheme. The frequency ratio involved in bell synthesis, 7/5, is used to create a fixed scale of frequencies, shown below (example 1). The ratio represents the musical interval between the 5th and 7th harmonics of the harmonic series, which is a slightly flat augmented 4th. This interval has the advantage of producing a scale with no octaves or equal-tempered intervals, which is congruent with the inharmonic character of most of the timbres heard in the piece. As FM synthesis produces many side-bands of higher frequency than the theoretical fundamental pitch, the scale ends well below the upper limit of the audio range.

Example 1

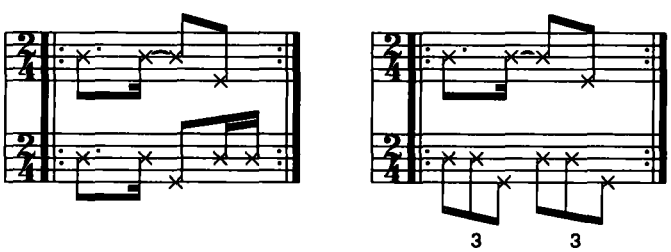
36	269	2025
50	376	2835
70	527	3969
98	738	5556
137	1033	7778
192	1446	10890

1.4 Rhythmic ideas

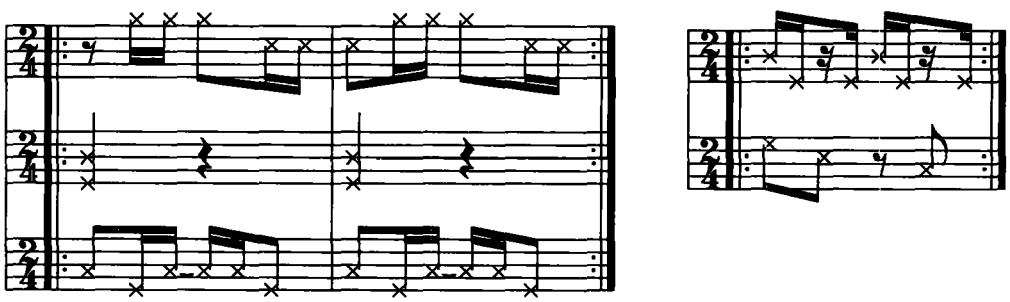
Several sections of the piece are concerned with the layering of repeating rhythmic figures. These are transcribed from field recordings of Amazonian Indian drumming music. There is no systematic process in quotation, the rhythms taken freely from a range of sources. For the listener, each reference itself is of no direct significance, but rather the role of these distinctive syncopated rhythms in context of the musical structure. Example 2 shows the rhythms which occur most prominently. The references to the musical sections are explained below.

Example 2

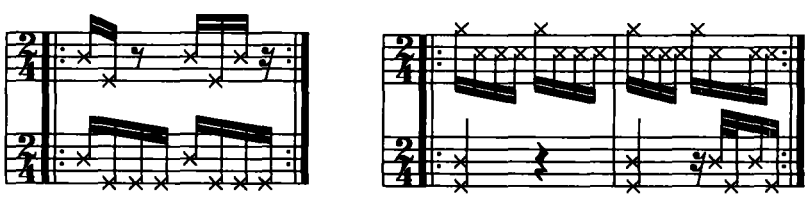
Section 1a)



Section 1b)



Section 3b)



1.5 Structure

This piece is a note-event orientated composition, concerned with the interaction of essentially fixed types of material, as defined by the instruments of the orchestra file. Structural coherence is achieved through this simple thematic approach; the repetitions and variations of the material being clear on a simple aural level. The non-rhythmic ideas underpin the structure of the piece, in the form of rapid punctuating gestures, or sustained textures which grow in volume and density through a series of peaks and troughs. The dynamic character of this material

contrasts to the essentially static nature of the repeating rhythmic figures (although rhythmic ostinati can generate their own kind of momentum, as is obvious in ritualistic drumming or even popular dance music).

The piece divides into three sections, of almost equal duration, each dividing into a number of parts. The overall structure explores the contrast between growth and expansion (Section 1) and disruption and decay (Sections 2 and 3).

Section 1

The first section progresses through a series of blocks, increasing in activity and intensity to the rhythmic music opening Section 2. It is concerned with arhythmic accumulations of texture, interrupted or accompanied by brief distinctive gestures, and an anticipation of the sounds and rhythmic ideas which follow.

Part Start time

a) 0'00"
A series of expanding sounds (instrument 6) gradually accumulate in different parts of the stereo field, with the introduction of the rallentando gated sound, instrument 7. This is accompanied by a series of punctuating gestures.

b) 0'43"
Five rapidly rising fanfares feature in this part, alternating with anticipations of sounds heard more prominently later (drum sounds and the diverging glissando effect, instrument 10).

c) 1'20"
This part uses the glissando bell sound more prominently, heard three times with punctuating effects. This is followed by a rapid surge of texture with the superimposition of many rallentando gated sounds, occupying a range of frequencies across the pitch scale.

d) 2'11"
This final part contains a rhythmic "pedal" throughout, reiterated on a low drum sound, which acts as a bridge to the more stable rhythmic music of the next section. A higher drum sound anticipates one figure from this section. The music is underpinned by expanding and gated bell sounds.

Section 2

This section establishes and repeatedly disrupts regular rhythmic material, superimposed with the various bell sonorities heard in the previous section. These act as "pedal points", underpinning the rhythmic ideas, and as interfering devices.

a) 2'41"
The first two rhythms shown in example 2 are explored initially, with rhythmic variations and the accompaniment of various bell sounds of types already heard. These become more dominant in the second half, using the third rhythm cited.

b) 3'24"
This acts as a transition to the more disjointed rhythmic music which follows, the rhythm in this part being disrupted by a rallentando gate effect, ending in a short pause.

c) 3'43"
Faster rhythmic ideas are alternated with loud reverberant bell effects, ending in the cessation of regular rhythm, and a series of aggressive bell intonations.

d) 4'23"
The final part acts as a brief altered recapitulation of Section 1a), as a pause before Section 3 begins.

Section 3

This section can be seen as a final "toccata" in which rhythmic patterns are reestablished but eventually disrupted and absorbed.

a) 4'56"
A preliminary number of rapid percussive gestures introduce the new section, before a brief reprise of material heard in Section 2b).

b) 5'12"
A new drumming pattern (see example 2,) alternates with variations of rhythms heard earlier, superimposed with sustained and rapid bell gestures.

c) 5'54"
The final part repeats the pattern of b), but with increasing interruptions from the fast reverberant bell effects heard earlier, This process gradually disrupts the rhythmic continuity, culminating in the accelerando gate sound which progressively builds across a range of frequencies. The drumming patterns are swamped in this texture, which concludes in the long reverberation device referred to earlier (instrument 12).

(end - 7'17")

Example 3 (statements preceded by ";" are non-functional)

```
sr=441000           ;sampling rate
kr=2205             ;control rate
ksmps=20            ;ratio of the above
nchnls=2            ;number of channels

instr 1
; drum 1

ga1 init 0
ga2 init 0
ga3 init 0
ga4 init 0
aenv        linseg 0,0.01,p4, p3-0.01, 0
kindex      linseg 0,0.01,p6, p3*0.3-0.01, 2, p3*0.7-0.01, 0
afm1        foscili aenv, p5, 1, 1/1.455, kindex, 1
afm2        foscili aenv, p5, 1.01, 1.01/1.455, kindex, 1
```

```
abalance = (afm1+afm2)*0.5

        ga1 = ga1 + abalance*p7*p8
        ga2 = ga2 + abalance*(1-p7)*p8
        ga3 = ga3 + abalance*p7*(1-p8)
        ga4 = ga4 + abalance*(1-p7)*(1-p8)
endin

instr 2
; drum 2

aenv            expseg p4*0.5,0.05,p4,p3-0.05,0.001
kindex          linseg p6, 0.02,1,p3-0.02,1
afm             foscili aenv, p5, 1, 80/55, kindex, 1

        ga1 = ga1 + afm*p7*p8
        ga2 = ga2 + afm*(1-p7)*p8
        ga3 = ga3 + afm*p7*(1-p8)
        ga4 = ga4 + afm*(1-p7)*(1-p8)
endin

instr 3
; drum 3

aenv            linseg  0,0.02,p4,0.02,p4*0.6,p3-0.04,0
kpitch          expseg  p5, p3, 0.75*p5
kindex          expseg  0.01,0.01,p6, p3-0.01, 1
afm             foscili aenv, kpitch, 1, 0.687, kindex, 1
        ga1 = ga1+ afm*p7*p8
        ga2 = ga2 + afm*(1-p7)*p8
        ga3 = ga3 + afm*p7*(1-p8)
        ga4 = ga4 + afm*(1-p7)*(1-p8)
endin

instr 4
; maracas/cymbal

kamp1           linseg 0,0.01,p4, p3-0.01, 0
anoise1         rand kamp1
kfreq           expseg 1446,p3,2834
afilt1          atone anoise1, kfreq

kamp2           expseg 0.001,0.01,p4, p3/2-0.01, 0.001, p3/2, 0.001
anoise2         rand kamp2
afilt2          reson anoise2, 192, 192/20, 1
abalance1       balance anoise1 , afilt1
abalance2       balance anoise2 , afilt2

aenv            linseg 0,0.01,p4, 0.04, 0, p3-0.05, 0
afm             foscili aenv, 268, 1, 1, 20, 1
abalance = (abalance1+abalance2+afm)/3
adel            delay abalance, 0.07
        ga1 = ga1 + abalance*p7*p8
        ga2 = ga2 + adel*(1-p7)*p8
        ga3 = ga3 + abalance*p7*(1-p8)
        ga4 = ga4 + adel*(1-p7)*(1-p8)
endin

instr 5
; simple bell

aenv            expseg p4, p3, p4/1000
kindex          expseg p6, p3, 1
```

```
afm             foscili aenv, p5, 1, 7/5, kindex, 1
        ga1 = ga1 + afm*p7*p8
        ga2 = ga2 + afm*(1-p7)*p8
        ga3 = ga3 + afm*p7*(1-p8)
        ga4 = ga4 + afm*(1-p7)*(1-p8)
endin

instr 6
; bell sound, slow attack with increasing I to Imax

aenv            linen  p4, 1, p3, 0.1
kindex          linseg 0.1, 1, 1, p3-1, p6
afm             foscili aenv, p5, 1, 7/5, kindex, 1
        ga1 = ga1 + afm*p7*p8
        ga2 = ga2 + afm*(1-p7)*p8
        ga3 = ga3 + afm*p7*(1-p8)
        ga4 = ga4 + afm*(1-p7)*(1-p8)
endin

instr 7
; bell sound, slow attack with decreasing I to Imin
; gate, rallentando

aenv            linen  p4, 0.1, p3, 1
kindex          linseg p6, p3-1, 1, 1, 0.1
afm             foscili aenv, p5, 1, 7/5, k2, 1

krate           expseg 15, p3, 1
kph             phasor krate
kgate           tablei kph*8, 2
        ga1 = ga1 + afm*kgate*p7*p8
        ga2 = ga2 + afm*kgate*(1-p7)*p8
        ga3 = ga3 + afm*kgate*p7*(1-p8)
        ga4 = ga4 + afm*kgate*(1-p7)*(1-p8)
endin

instr 8
; bell sound, slow attack with decreasing I to Imin
; gate, accelerando

aenv            linen  p4, 0.1, p3, 0.01
kindex          linseg p6/10, p3, p6
afm             foscili aenv, p5, 1, 7/5, kindex, 1

krate           expseg 2.3, p3, 20
kph             phasor krate
kgate           tablei kph*8, 2
        ga1 = ga1 + afm*kgate*p7*p8
        ga2 = ga2 + afm*kgate*(1-p7)*p8
        ga3 = ga3 + afm*kgate*p7*(1-p8)
        ga4 = ga4 +  afm*kgate*(1-p7)*(1-p8)
endin

instr 9
; diverging double gliss bell, variable gliss depth without delays

aenv            expseg p4, p3, p4/100
kindex          expseg p6, p3, 1
kgliss          expseg 1, p3*0.1, 1, p3*0.9, p9
afm1            foscili aenv, p5*kgliss, 1, 7/5, kindex, 1
afm2            foscili aenv, p5*(1/kgliss), 1, 7/5, kindex, 1
abalance = (afm1+afm2)*0.5
        ga1 = ga1 + abalance*p7*p8
```

```
        ga2 = ga2 + abalance*(1-p7)*p8
        ga3 = ga3 + abalance*p7*(1-p8)
        ga4 = ga4 + abalance*(1-p7)*(1-p8)
endin

instr 10
; diverging double gliss bell, variable gliss depth and delays

aenv            expseg p4, p3, p4/100
kindex          expseg p6, p3, 1
kgliss          expseg 1, p3*0.1, 1, p3*0.9, p9
afm1            foscili aenv, p5*kgliss, 1, 7/5, kindex, 1
afm2            foscili aenv, p5*(1/kgliss), 1, 7/5, kindex, 1

adel1           delay (a1+a2)*0.5, 10/1000
adel2           delay (a1+a2)*0.5, 20/1000
adel3           delay (a1+a2)*0.5, 30/1000
adel4           delay (a1+a2)*0.5, 40/1000
adel5           delay (a1+a2)*0.5, 50/1000
adel6           delay (a1+a2)*0.5, 60/1000
abalance = (afm1+afm2+adel1+adel2+adel3+adel4+adel5+adel6)/8
        ga1 = ga1 + abalance*p7*p8
        ga2 = ga2 + abalance*(1-p7)*p8
        ga3 = ga3 + abalance*p7*(1-p8)
        ga4 = ga4 + abalance*(1-p7)*(1-p8)
endin

instr 11
; general reverberation

a1              reverb ga2 ,p4
a2              reverb ga1 ,p4

a3 = 0.9*a1 + 0.1*a2
a4 = 0.1*a1 + 0.9*a2

        outs a3+ga3,a4+ga4

        ga1 = 0
        ga2 = 0
        ga3 = 0
        ga4 = 0
endin

instr 12
; special reverberation with gate

a1              reverb ga2 ,p4
a2              reverb ga1 ,p4
a3 = 0.9*a1 + 0.1*a2
a4 = 0.1*a1 + 0.9*a2

krate           expseg  0.25, p3*0.2, 10, p3*0.8, 0.5
kph             phasor krate
kgate           tablei kph*8, 2

        outs (a3*0.3) + (a3*kgate*0.7),  (a4*0.3) + (a4*kgate*0.7)

        ga1=0
        ga2=0
        ga3=0
        ga4=0
endin
```

2. Two Nocturnes

2.1 Introduction

These pieces were composed in a highly intuitive manner, without using any of the precompositional methods - relating to either pitch or rhythmic structure - more characteristic of other works. They experiment with a different approach, allowing complete freedom of expression, within the context of an assumed musical style.

The **Two Nocturnes** are mood pieces; their title refers to the piano music of Field and Chopin. The intention was not of pastiche or quotation, but rather of stylistic reference and distortion. Other influences were also significant, such as the piano arrangements of Gershwin songs by Michael Finnissy, and modern jazz harmony. The references to the early 19th century style of Field and Chopin are clear, such as the use of simple two-part textures of melody and accompaniment, chromatic inflection in melodic lines, and certain characteristic repeating rhythmic patterns. Finnissy's Gershwin arrangements were influential in their exploration of musical transformation, retaining crucial elements of the original melodic or harmonic material despite considerable distortion and textural variation. The **Nocturnes** experiment with a similar device, using stylistic reference rather than actual quotation as a basis.

The rhythmic notation of the pieces may appear complex, however this complexity is superficial. In the first draught of the music, the rhythm was notated in a simpler manner with a common time signature and more constant rhythmic flow; this score was used as the basis of an improvisation in performance. The irrational rhythms and fluctuating metres of the final score attempt to realise a whimsical, rubato style in exact notation.

2.2 Harmony

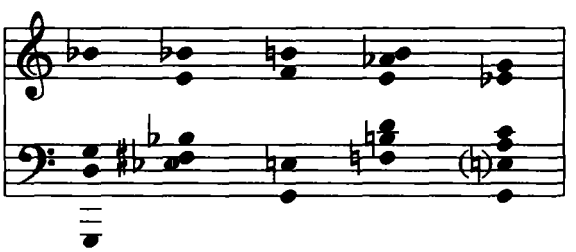
Both pieces explore a harmonic vocabulary derived from the tonal language, and their structure is related to the hierarchical tonal system. However in both cases, the references are distorted; there are very few occurrences of unadorned tonal triads, so that key centres are often implied rather than strongly asserted, and the modulation to and from key centres does not often follow a conventional path. The music attempts to play upon the listener's expectations, providing moments of colouristic, near atonal harmony (as in the opening of **Nocturne 1**) and brief moments of tonal resolution; most often, the harmony explores a grey area in which tonal progressions are hinted at, but their resolution is elided. Higher dominant 7th chords are frequently used to this end, with added notes such as major/minor 9ths, 11ths or 13ths. This colouristic treatment uses modern jazz harmony as a model, which often treats simple underlying harmony in a similar way. The pieces are not identical in their treatment; the second is much clearer in its tonal framework and harmony.

Example 4 shows three chord progressions. The harmonies are labelled as independent chords (jazz notation) and in terms of their implied tonality. Both these forms of description are inadequate, hence the contradictory labelling of the first two progressions. The final chord of the third group cannot be easily described as a tonal harmony, but implies a C minor chord in first inversion. There are many other examples of chords which similarly resist classification; deliberate "wrong notes" are used to distort the implied harmony. The examples given show two ways in which harmonic progressions are achieved; a common device is chromatic voice leading, as can be seen in the bass of the third group. The other examples use a pedal point (in the lowest and highest voices respectively), but voice leading - chromatic or otherwise - plays a role. Voice leading also functions over longer periods, for instance in the introduction of **Nocturne 1**. The lowest notes form a pattern from bar 4 onwards, progressing by whole tone or semitone intervals (occasionally these are displaced by octave, as in the C# to D, bars 17 - 18).

Example 4

Nocturne 1

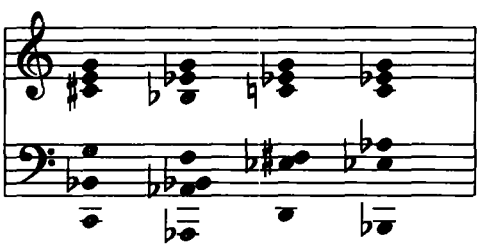
bars 24 - 27



Gm **Gm** M7 13(b) **G7** 13 **G7** b9 **G/C** #9 11

Gm: I **C:** (II -9) V7 V-9 I

bars 81 - 84

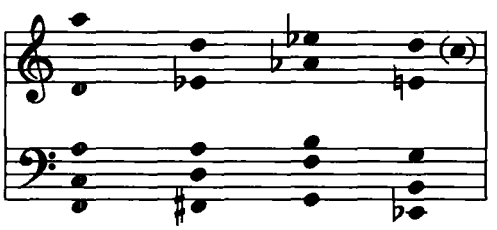


C7 b9 **Ab** M7 9 13 **D7** b9 Bb/**Ab** M7

F: V-9 **G:** (bII7) V-9 **Eb:** V9

Nocturne 2

bars 1 - 4



F6 **D** b9 **G7** b9 b13 ?

F: I **C:** II-9 V-9 (I)

2.3 Structure

The **Two Nocturnes** have an overall structure. The tensions of the rhapsodic and tonally ambiguous first piece are resolved in the simpler musical form and relative tonal clarity of the second. Also, the implied tonic key of the first piece, C major, acts as the dominant of the second key, F major. These relationships reflect the contrast in mood between the two pieces.

Nocturne 1 is free in form, but divides into two parts. Each forms an arch shape, moving towards and away from a climax, the second being stronger. The second part is a free development of the first; this structure is summarised below (the tonic centres indicated are often elusive).

Part 1	**Bar**	**Tonic**
Introduction	1 - 19	C - modulatory/ no key
A (Refrain)	20 - 23	(F)
B	24 - 59	G minor - modulatory
Part 2		
A' (Refrain)	60 - 66	(F#)
B'	67 - 92	A major - modulatory
A'' (Refrain)	93 - 96	C major

Nocturne 2 can be divided into short structural units of a similar duration; the musical phrasing is more regular than in the first. The form is tripartite, the final part being a brief varied recapitulation of the first. The tonic centres indicated are more clearly established in the music.

Part 1	**Bar**	**Tonic**
A	1 - 13	F major - C major
B	14 - 17	G minor
A'	18 - 25	G major
Part 2		
C	26 - 32	Ab
C' (**B'** - bass)	33 - 40	E
A''	41 - 46	E minor - F minor

B'	47 - 50	F minor
Part 3		
A	51 - 64	F major

The techniques of variation are simple in both pieces, using devices such as transposition, sequence and textural embellishment of the material. Also, both develop short melodic motifs; the three note group consisting of a falling or rising second (major or minor) and falling or rising third (major or minor) is a recurrent feature.

3. When a parasol is cooled...

3.1 Introduction

This short setting for mezzo soprano, flute, violoncello and piano was composed for a workshop given by the London Sinfonietta Soloists in 1990.

The text used is "International Chainpoem", an exercise in early surrealist poetry in which each line has an different author (listed in order below). Despite the nature of its construction, the poem is striking for its congruity. The individual lines seem to be unified by a simple but evocative pictorial image, which is disguised by the changes in style between cryptic or more lucid forms of expression. As a subject for musical interpretation, the poem offers a depiction of mood and movement, and also contains individual words or phrases which invite direct musical description.

> When a parasol is cooled in the crystal garden,
> one spire radiates and the other turns round;
> a toad, the Unwanted, counts the ribs teardrops
> while I mark each idol in its dregs.
> There is a shredded voice, there are three fingers
> that follow to the end a dancing gesture
> and pose a legend under the turning shade
> where the girl's waterfall drops its piece.
> Then balls of ennui burst one by one,
> by and by metallic metres escape from ceramic pipes.
> Oh sun, glass of cloud, adrift in the vast sky,
> spell me out a sonnet of a steel necklace.

(1. Takesi Fuji 2. Katue Kitasono 3. Charles Henri Ford 4. Dorian Cooke 5. Norman MacCaig 6. Gordon Sylander 7. George M. O'Donnell 8. Parker Tyler 9. Saburoh Kuroda 10. Nageo Hirao 11. Syuiti Nagayasu 12. Tuneo Osada)

3.2 Musical material

The material employed is characterised by texture, and is of two basic contrasting types, which undergo free combination and variation. The opening passage (bars 1 - 11) present these in succession in an extreme form; the short melodic phrases which emerge initially from chordal textures (heard in the piano solo), and the "pointillistic" music which follows. The contrast throughout the piece is between sustaining chordal/melodic ideas and isolated, fragmentary gestures. The former retains its chordal character throughout the piece, but is also developed to create the melodic material heard, such as the flute solo beginning at bar 38, and the short melismatic vocal phrases. The second type appears in the form of colouristic effects and articulations and the more fragmentary rectitativo vocal passages, but also develops into the rhythmic music heard later in the piece (such as the 'cello, bar 56 - 60). It seemed appropriate to the nature of the text that the composition should avoid any clear sense of structural linear progression, but instead present a series of

disjointed musical images; each of these present free variations of the two types of music. A degree of structural cohesion is achieved through the use of strong articulations, either in the form of textural changes (for example the contrasting solo passages at beginning at bars 39 or 73), or punctuating attacks which mark the beginning of a new line of text.

Word painting is explored in setting the poem, presenting simple interpretations of some of the most distinctive words. Examples can be found in the vocal line, such the melismatic setting of the word "radiates" (bars 24-25), the use of fast repeated notes for the word "shredded" (bars 50-51) and the rhythmic articulations for "dancing gestures" (bars 56-58). The speaking voice heard in bars 94-96 was suggested by the phrase "spell me out". A second approach explores an implied image in musical terms. For example, the "pointillistic" texture in the flute and 'cello of bars 8 -13 reflects the image of the fall of raindrops suggested by the opening line of the poem. Similarly, the setting of "Oh sun..." attempts to create the intensity of light and heat implied in the image. These ideas occurred at the outset of the compositional process.

Despite the divergences of character in the musical material, there is a common approach to pitch throughout. This can be regarded as an improvisation on a family of related four note chords. Example 5 (at the end of this chapter) shows the piano solo of bars 1-7; brackets are used to illustrate how the music is formed out of 12 interlocking pitch groups (for example, bracket 3 groups the four notes of the upper line, whereas bracket 2 includes the first note of this, G, but also the three notes of the lower voices, A, E and Eb). Example 6 shows the 12 pitch groups transposed by octave to a common register, with the individual notes rearranged so that the relationship between chords can be seen; this was in fact the original sketch for the passage. Chords 1, 2, 4, 7, 9 and 11 are of the same type, consisting of the intervals perfect fourth, augmented fourth and major third; this chord is the basis of the pitch construction. Chords 3, 5, and 6 are the inversion of this type, at different transpositions. The remaining three (8, 10 and 12) are transformations of the original type, exploring certain intervals (such as groups of perfect fourths) and omitting others. This process is developed throughout the piece, so that there is a tendency to contrast pentatonic sonorities (chords built out of fourths alone) with implied whole tone scales (derived from the augmented fourth/major third intervals of the original). Throughout the piece, pitch aggregates can always be considered in relationship to these chords, but some occurrences (such as the scalic passages beginning at bar 52, produced by free combinations of groups) would not be clear to the listener. This material is more clearly related to the melodic presentation of pitch groups heard in the opening passage, emphasising certain intervals, such as falling minor seconds.

3.3 Structure

The music is conceived as a recitativo framed in three verses, corresponding to the three sentences of the poem (four lines each). Each verse is preceded by an instrumental introduction featuring one of the three players in turn, which decrease in duration on each occurrence. The first two verses are variations on the material presented in their respective introductions, the climactic final verse reworking

material from the first. All three verses divide into shorter sections determined by the lines of the poem.

Verse 1 (bars 1 - 38)

The two contrasting types of material described earlier are presented in the introduction (bars 1 - 11). Throughout this verse, the piano retains dominance with chordal accompaniment to the voice, although this is transformed for the final section (beginning at bar 31), in which there is a closer correspondence between the material in all three players. The flute and 'cello are mostly restricted to articulations and brief commentaries on the vocal line, growing out of their initial material.

Verse 2 (bars 39 - 72)

The new melodic ideas heard initially in the flute dominate this verse, which is more agitated and rhythmic than the last. The flute and 'cello weave a dialogue with increasing momentum around the declamatory vocal line, culminating in rapid scalic passages. In the setting of the final two lines, beginning at bar 62, there are references to the material of the previous verse. The mood becomes more contemplative, thus forming an arch shape overall.

Verse 3 (bars 73 - 100)

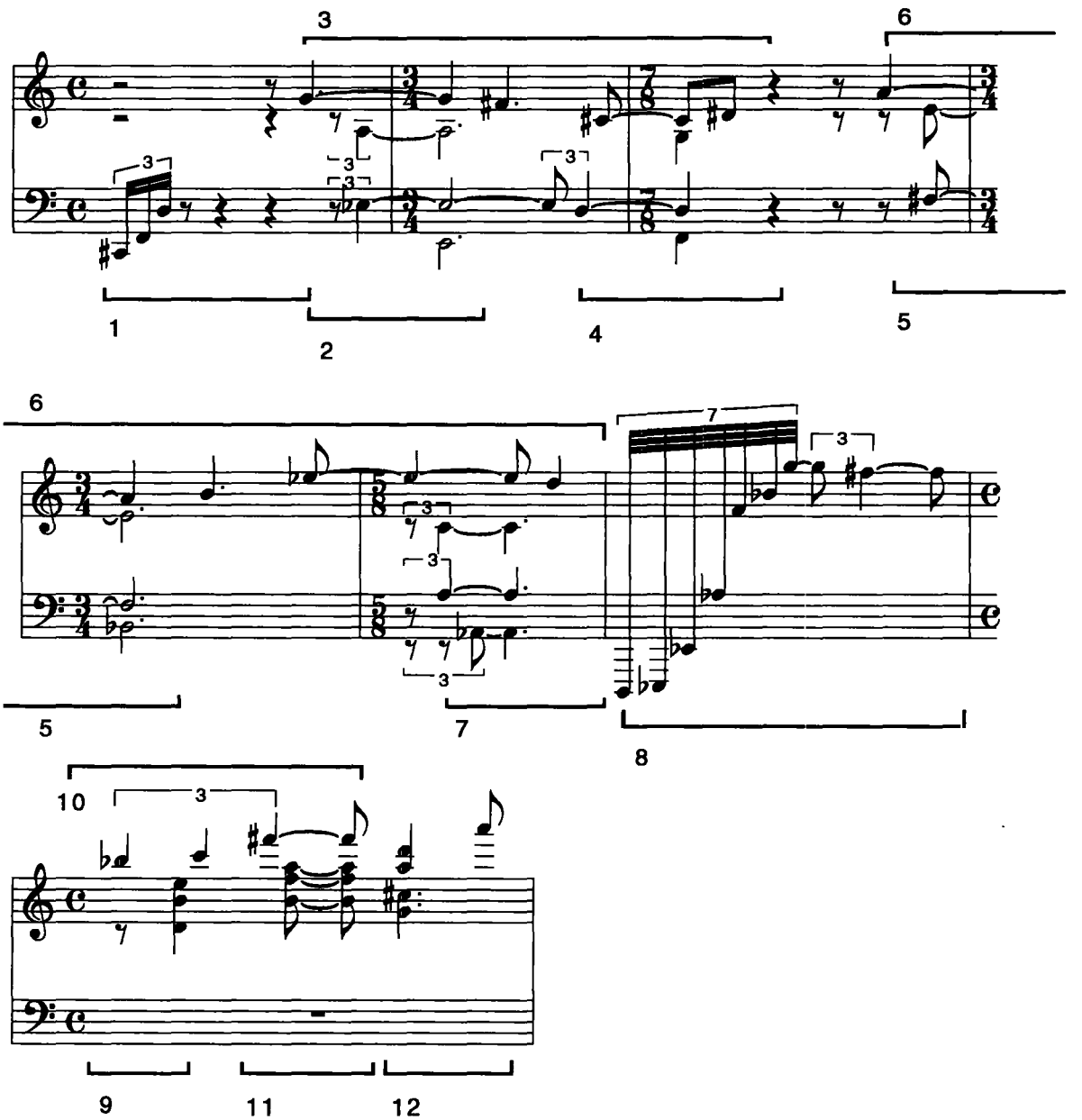
A short 'cello solo leads to a reworking of the material, progressing rapidly to the climactic setting of "Oh sun..." at bar 87. The final section (beginning at bar 94) consists of a recapitulation of the opening piano solo, transposed by an augmented fourth.

3.4 Performance

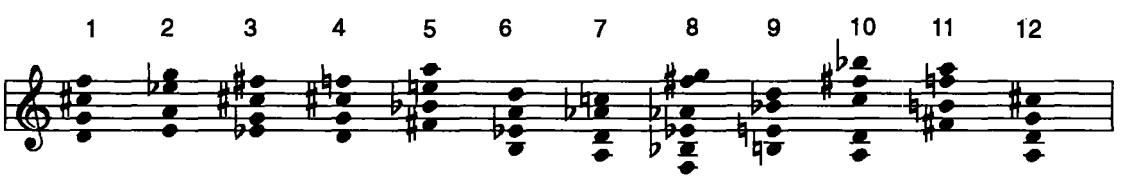
London Sinfonietta Soloists with Susan Bickley (workshop performance).
University of Durham, 1991.

As to be expected in a workshop performance, there are a number of rhythmic and pitch inaccuracies, however the performance overall is of a high standard.

Example 5



Example 6



4. Dances and Visions

4.1 Introduction

This work was composed for the Durham University New Music Group, and performed in 1991. The ensemble consists of flute/piccolo, two clarinets in Bb, bassoon, piano, marimba, two violas and cello.

The concept of **Dances and Visions** is to reflect in music the instantaneous impact of a number of poetic images. These are drawn from "Vision", a work by the early American surrealist poet, Harry Crosby (1898-1929). The poem is quoted in its entirety below; the underlined segments are also quoted at the relevant points in the score. These individual lines seemed to offer the most powerful sources of inspiration, but are representative of the whole poem, with its strong images of colour and movement, and the absence of any clear narrative logic. These characteristics are representative of the early surrealist school, which was concerned with the assertion of dreams and the subconscious mind over the reasoned perceptions of the waking conscious state. Poetry and fine art of the period reflects this aim through the use of direct, literal images, juxtaposed so as to undermine any confidence in perceived reality, (Dali's "critical paranoia").

The preoccupation of some surrealist poets with "automatic writing", suggested a similarly intuitive approach in this piece, although there is no use of chance operations (which might be thought of as the most obvious analogy in music). This composition can be considered as series of intuitive moments, either static or transitional in nature, exploring a colouristic and textural interpretation of a given image. The composition also explores the poem on another level, interpreting the form of Crosby's work to create an overall musical shape. This could be described in four stages; firstly, a sudden rise in tension and an explosion of activity and ideas, and then a dissolution into a more meditative state. This becomes more agitated and confused, leading finally to further "explosions" and a resolution.

Vision

I exchange eyes with the Mad Queen

the mirror crashes against my face and
bursts into a thousand suns
all over the city flags crackle and bang
fog horns scream in the harbor
the wind hurricanes through the window
and I begin to dance the dance of the
Kurd Shepherds

I stamp on the floor
I whirl like dervishes

colors revolve dressing and undressing
I lash them with my fury

stark white with iron black
harsh red with blue
marble green with bright orange
and only gold remains naked

columns of steel rise and plunge
emerge and disappear
pistoning in the river of my soul
thrusting upwards
thrusting downwards
thrusting inwards
thrusting outwards
penetrating

I roar with pain

black-footed ferrets disappear into holes

the sun tattooed on my back
begins to spin
faster and faster
whirring whirling
throwing out a glory of sparks
sparks shoot off into space
sparks into shooting stars
shooting stars collide with comets

Explosions
Naked Colors Explode
into
Red Disaster

crash out through the
window naked, widespread
upon a
Heliosaurus
I uproot an obelisk and plunge
it into the ink-pot of the
Black Sea
I write the word
SUN

(Harry Crosby)

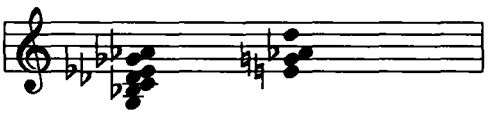
4.2 Structure and musical material

The piece divides into two main parts, the first part corresponding to the initial two stages described above, the remaining stages shaping the second part. Each part consists of a number of musical blocks, contrasting in instrumental colour and texture. Despite these contrasts, the blocks are linked by recurring thematic ideas. The overall structure is summarised below.

There is no strict system applied to pitch material; the thematic ideas are developed freely from two chords, shown in example 7. These chords form the basis of all the melodic/harmonic material, using their characteristic intervals, although the both

chords appear in an unaltered state (for example, chord 1 at bars 43 - 46; chord 2 in a variety of transpositions at bars 20 - 23, 33 - 34, 87 - 91 and 92 - 97). Intervals are explored to produce melodies, or harmonic fields which are freely elaborated by melodic lines (for example, in bars 27 - 32). Once established, the thematic material itself undergoes variation or repetition; for example, the opening viola 1 solo forms the basis of the meandering melodic lines beginning at bar 50; the punctuating notes in the texture at bar 27 are extensively developed throughout the piece (especially from bar 69).

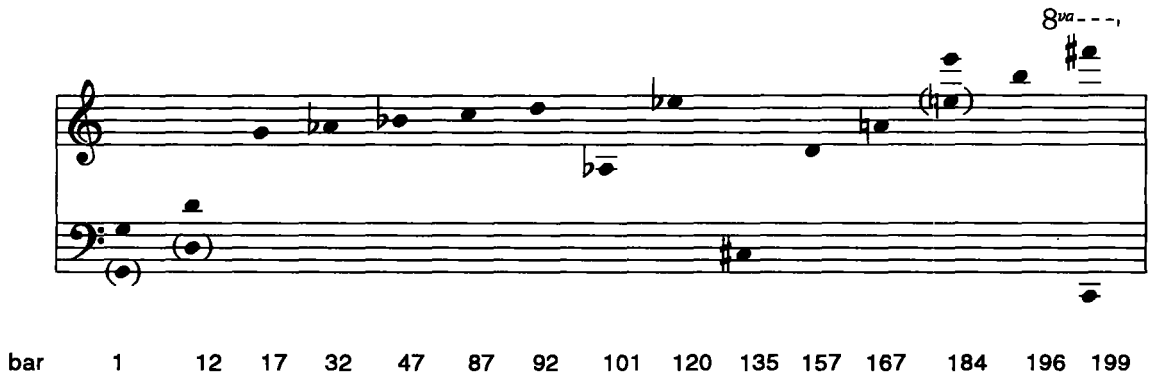
Example 7



The thematic material can be divided into two groups; ostinati and free melodic lines. The first type appears initially in the form of the slow sustained figures, heard at the opening in the second viola and cello, and simple repeating melodic/rhythmic patterns, (first heard in the first viola at bar 7). Evolving melodic ostinati of this type dominate the second part of the piece. In addition, the percussive music beginning at bar 69 is a disguised form of ostinato; a series of eight chords in the piano part are repeated, transposed upwards by one semitone on each occurrence, but without rhythmic repetition. This continues, with brief interruptions, to bar 86. The pitch canon which occurs in the woodwind from bar 50 could be regarded as a related technical device, the repetitions being superimposed rather than juxtaposed. However, the pitches used are taken from the opening viola 1 solo, which can be classed with the second type of material, free melody. This material also involves a degree of repetition, as can be seen in the viola 1 and clarinet melodies of the opening. These lines gradually unfold, dividing into a series of short phrases which begin by repeating notes from the last. A similar approach is taken in the flute melody of bars 117 - 133 and the extended bassoon melody of bars 134 - 166. The musical material can perhaps be seen as quite divergent in its character, but is linked through the simple device of repetition.

Although the form of the composition was developed without strict preplanning, the structure is underpinned by a series of strongly emphasised notes, shown with bar references in example 8. The pitches form an ascending pattern, mainly consisting of perfect 5ths and major 2nds. These are also shown in the brief summary of the overall structure. These pitches allowed a simple structural plan to be devised during the process of composition which could indicate progressions in register and moments of repose. The correspondence between passages without strongly emphasised pitches, or between those which either clearly state or focus upon a single pitch, acts as a cohesive element of the structure.

Example 8



Structure

Part 1	**Bar**	**Pitch**	**Material**
Introduction	1 - 16	G - D	Cello/viola 2 ostinati. Unfolding melody in viola 1/clarinets.
Block 1 (**a-b-c-b-c-d-a**)	17 - 49	G - Ab - Bb	**a** - Piano cadenza. **b** - Sustained transition. **c** - Free picc/bsn melodies; punctuated. **d** - Climax.
Block 2	50 - 100	C - D	Pitch canon. Percussive ostinati (**e**) Material **c** bar 87 - 97.
Part 2			
Transition	101 - 110	Ab	Tremelando ostinati from bar 7.
Block 1	111 - 166	Eb - C# - D	Piano/string ostinati; flute melody Clarinet ostinati; bassoon melody. Material from Introduction, bar 157 - 166
Block 2	167 - 206	A - E - B - F#	Climactic rhythmic section. Variation of material **c** and **e**. Coda.

The relationship between the lines of Crosby's poem cited in the score and the music itself is intended to be simple and direct. The first cryptic line ("I exchange eyes with the Mad Queen) is represented by the exchange of ideas in the imitative entries in the viola and clarinets (bars 2 - 7) and the clear sense of arrival in the piano solo (**a**), bar 17. The agitated woodwind texture of bars 24 - 42, punctuated by percussive attacks and trills, reflects an image of explosive fragmentation ("the mirror crashes against my face and/bursts into a thousand suns") which culminates in the loud declamations of "fog horns scream in the harbor" (**d**). These hallucinations are supplanted by images of movement and dance, represented firstly in the meandering melodic lines of bars 50 - 68 which become increasingly rapid, and the aggressive hocket music which follows (**e**); this recurs in a varied form later in the piece, at bar 184. The long section from bar 101 to 183 depicts the whirling of dervishes described in the poem. This whirling is striking for its visual excitement, but for the dancer produces a trance-like state of religious meditation. The quiet repeating ostinati which begin this section try to reflect this state, but the music is not static and progresses gradually through a series of peaks and troughs to a climax. The final line "I write the word SUN" is depicted with the intense, loud sustained notes of the coda. The line might be interpreted literally, or as a statement of the fulfilment achieved in the poet's hallucination.

4.3 Performance

Durham University New Music Group, November 1991. Conductor - the composer.

Some problems of balance are evident (such as in the section 133 - 166); this perhaps results from an inadequate use of extreme dynamic markings (ppp - fff), which would also have enhanced the texture of bar 50 onwards. The absence of the piccolo in bars 43 - 44 will also be noted.

5. String Quartet No.2

5.1 Introduction

This composition was written primarily as an attempt to deal with the challenges of an abstract large scale structure. The greatest attraction of the string quartet is perhaps the discipline which the idiom creates, offering many textural and colouristic possibilities within an essentially homogeneous sound world. This quartet was not composed with an immediate performance in mind; consequently, technical and ensemble considerations were not paramount (the piece is clearly demanding in these respects). The quartet was selected for performance by the SPNM and the first movement alone, due to limitations of rehearsal time, was performed by the Kreutzer Quartet in Munich and Bergano in 1994.

The main preoccupation in this piece is with the development and mutation of distinct thematic blocks. In the three contrasting movements of the work there is a process of gradual stylistic modulation, or the transformation of identifiable musical events, from one mood or temperament to another. The beginning of the opening movement is austere, highly dissonant and disjointed in the presentation and treatment of gestural musical ideas, fluctuating rapidly between contrasting textures and rates of motion. This character is modified during the movement, progressing towards lyrical and more stable material explored in the second and third movements. The material is increasingly characterised by its melodic nature rather than its underlying interval content or texture, the second movement exploring the free variation of distinct melodic themes. The repetitions and superficial variations of the third movement create a secure and more stable musical world, which is more consonant in its harmonic language and subdued in mood.

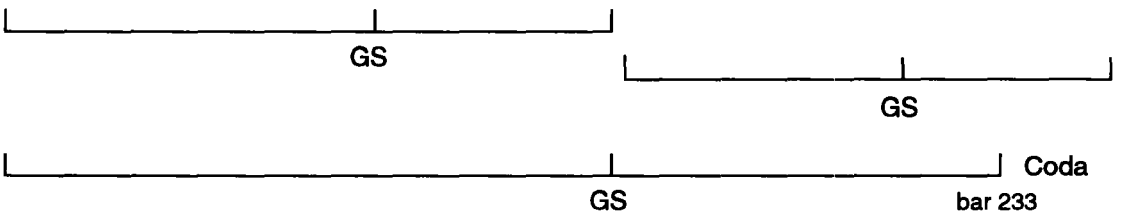
Each movement can be considered alone in terms of structure and musical material; the relationships that exist across the work as a whole involve quite radical transformations of material, and might be considered tenuous. In the context of this portfolio submission, this composition is developmental and explorative; it is difficult to judge the success of the stylistic changes in the piece without hearing a whole performance.

5.2.1 Movement 1 - Structure

The first movement is concerned with the juxtaposition, interaction and development of thematic blocks. The individual character of these themes is discussed below. There was a considerable degree of precompositional planning in the construction of this movement, involving the use of proportions to determine overall structure. The movement divides into two parts, concerned with different aspects of thematic transformation; each of these consists of two principle sections. Example 9 shows the four sections of the movement and their durations. Golden Section relationships exist between the first, longer section of each part and the shorter second section. A third Golden Section proportion applies to the whole movement, if the final coda of 50" (beginning at bar 233) is ignored.

Example 9

	Section 1	Section 2	Section 3	Section 4
bar no.	1	91	151	211
duration	192.5"	116.5"	140"	89"



Example 10 shows the internal division of each section. The first two sections employ a palindromic pitch set as a structural device (shown in example 11), which is always presented in the form of a clear, sustained note. Each note marks the beginning of a new part within the section, the duration of each part gradually decreasing throughout the first two sections in the approximate ratio, 1.2 : 1, so that the first part is 51" long, and the final part is only 4". (The pitch which begins each part is indicated in example 10). The appearance of these notes is at first clearly structural, acting as a pause between the dense and active musical material heard; however, as the duration between parts decreases, the sustained pitches are increasingly absorbed into the musical texture. The process of gradual acceleration reaches a climax in Section 3, in which the pitch set becomes "thematicised" as a new melodic idea in its own right, and immediately undergoes transformation. The palindromic nature of the pitch set serves to emphasise the pitch middle C; this functions as central note, beginning Sections 1 and 2, and ending Sections 3 and 4. The climax of section 3 (bar 191) emphasises a pitch not included in the pitch set, F#. The progression to and from two pitches a tritone apart also underlies the pitch structure of movement 2.

The categories of thematic material used in this movement are also shown in example 10. Section 1 consists of a series of simple juxtapositions, in which the principle material, **a**, is dominant, and the other types act as cadential points or bridge sections. These are developed more prominently in Section 2, which combines the material and explores new textural variations (such as the polyphonic treatment of theme **d** in the part starting at bar 104). A new type of material, **f**, is also introduced; this can be seen as an anticipating the transformation of the pitch set heard in Section 3 (bar 188). Section 3 is concerned mainly with this process of transformation, but ends with a fragmented reprise of **a1** from Section 1. The final section continues the development of **a1**, which assumes an accompanying role for the extended violin 1 melody beginning at bar 221. This melody combines elements of **b** and **d**, and is related directly to one of the melodic themes developed in the second movement. The coda section referred to earlier begins at the climax of this melody (the high octave C in violin 1) and consists of a brief recapitulation of four thematic blocks, finally reasserting the central pitch, middle C.

Example 10

	Section 1				
bar no.	1	24	48	68	82
duration	51"	49"	36.5"	31"	25"
pitch	C (vc)	Ab (vc)	B (vla)	F (vc)	C# (vln 1)
material	a1 b a2	c b a3 d(+b)	a4 d b c(+d) a4 c	e a5	d a6 e

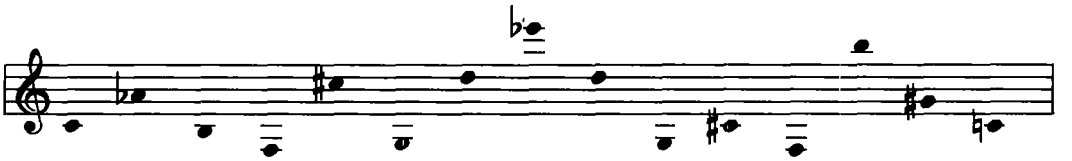
	Section 2				
bar no.	91	104	116	122	131
duration	23.5"	18.5"	16"	13"	12.5"
pitch	G (vla)	D (vln 2)	Eb (vln 2)	D (vln 2)	G (vla)
material	f + b	(f) d	b + d	c	e (f)

bar no.	136	139	142	146	148
duration	9.5"	8"	6"	5.5"	4"
pitch	C# (vln 1)	F (vla)	B (vln 2)	G# (vln 1)	C (vc-vln2-vla)
material	f	a7	a7	a7	a7

	Section 3			
bar no.	151	171	188	197
duration	63"	29"	21"	27"
material	pitch set	transformation	f	a1 (reprise) + f

	Section 4		
bar no.	211	221	233
duration	15"	24"	50"
material	a1 (variant) + f	a1 (variant) + d/b (variant)	b c d a1

Example 11



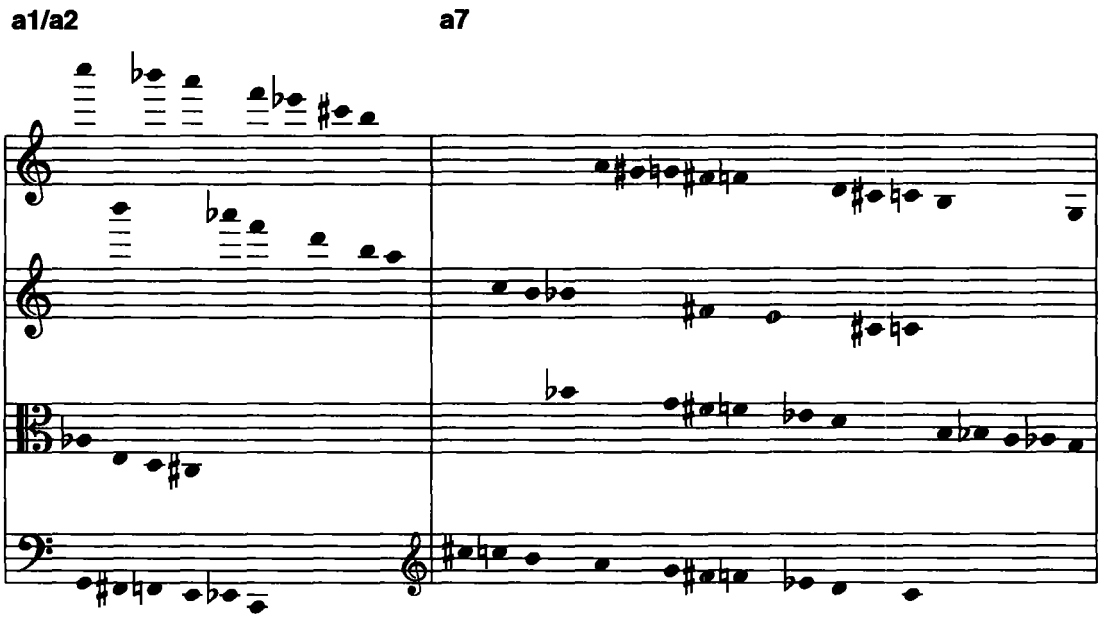
5.2.2 Movement 1 - Thematic blocks

The pitch set shown above is derived from a scale pattern consisting of small intervals; seconds and minor thirds. Interval content is the essential distinguishing element for each thematic block, although other characteristics (texture, instrumental colour, melodic character) are significant. This allows each theme to exist as an abstract concept, which can be reinvented afresh as music on each occurrence. The blocks are presented at first as self-contained musical statements, but there is an increasing tendency for the character of one block to influence the next (such as the more lyrical **a5** which follows **e** at bar 72), leading to the greater integration of the ideas in Sections 2 and 4.

Theme **a**

The principle material is rhythmic and aggressive, employing hocket extensively. On each presentation, the material is progressively compressed in register, focussing gradually on the central pitch of the movement, middle C. The loud, strident arco attacks which characterise **a1** are modified by the increasing use of pizzicato, sustained notes and dynamic contrasts in later variants. The pitch material is derived from a number of scale patterns, related to the scale used to devise the pitch set (example 11). The music is stratified into layers, each instrument often exploring a different scale. As the process of registral compression develops, these scales increasingly overlap. Example 12 shows the pitches used for **a1/a2** (bars 4-12/16-24) and **a7** (bars 139-150). Both violins share a scale pattern for **a1/a2**, with only two notes in common; all four instruments us a scale of narrow tessitura for **a7**. The scales are presented in the form of isolated notes or diads, a fixed number existing for each instrument. For example, in **a1** there are 3, 4, 5, and 6 pitch events, allocated respectively to violin 2, viola, cello and violin 1. This passage also presents most clearly two structural devices used; a palindromic form in rhythm and pitch, and a numerical series which determines the instrumental density for each pitch event. These were both compositional devices used to create the initial material; on later recurrences neither is obvious, although the palindromic structure of each **a** block is the clearer of the two.

Example 12



Theme **b**

This material is characterised by pizzicato sounds, rapidly progressing upwards or downwards. The intervals used are minor/major thirds, compressed to major or minor seconds at the end of each phrase. Each occurrence has a strong registral shape, the four parts progressing either inwards (as in bar 29) or outwards (as in bar 53), this is accompanied by a gradual notated acceleration. Despite the apparent complexity of rhythmic notation, the intended effect is a free, aleatoric superimposition of lines. Pizzicato attacks (for example, in bar 45) and the intrusion of pizzicato into variations of **a** (such as in **a3**, bar 32) can be seen as developments of this thematic block. As mentioned earlier, the extended violin 1 melody beginning at bar 221 is drawn partly from this block, in the use of a gradually unfolding chord of thirds.

Theme **c**

The intervals characterising this material are perfect fourths and major seconds, heard in the form of brief, fragmented phrases of rapid semiquavers. This is always preceded by a sfz tremelando attack on a high sustained note, from which the melodic movement descends. The first occurrence, as with **d**, is in a single line (bar 27), but this develops into three or four part textures on later appearances. This material recurs in the central section of Movement 3.

Theme **d**

This material forms the basis of the violin 1 melody at bar 221, in the distinctive tritone double-stopped chord which moves by glissando to a single pitch. By definition, this material is restricted to chords which include one open string. Similar to the two themes discussed above, this material is characterised by a gradual

increase in rhythmic motion, progressing from a sustained note through a series of attacks to fast repeated notes. The polyphonic development of this material forms an important part of Section 2 (beginning at bar 108).

Theme **e**

This is a static block initially, consisting of a series of quiet cluster chords, which arise out of the sustained F heard in the 'cello at bar 68. The material has a tendency to grow outwards in register, developing a sense of melodic line; this occurs most obviously in the last appearance at bar 239. This transformation into large sonorous chords forms the basis of the principle material in Movement 3.

Theme **f / pitch set**

This rapid scalic material marks the beginning of Section 2, and is drawn from material employed in **a**. The use of patterns of small intervals also relates this material to **e** and **b**. The transformation which is the basis of Section 3 shows a further relationship; between this material and the pitch set which is applied across the first two sections. As mentioned above, this set of notes continues its process of gradual acceleration begun in Section 1 and 2, but presents the pitch set as a melodic theme, rather than a set of isolated sustained notes. This is heard at the beginning of Section 3 (bar 151) in all four parts, the original set of notes in violin 1 and varied forms in the other lines (violin 2 states a rotated and transposed form, the 'cello repeats extracted fragments in inversion). In this passage the acceleration continues on each repetition of the pitch set; in the following section (beginning at bar 171) the set is heard as one line only, divided across all four players (this hocket is reference to the material **a**). This melody undergoes interval compression and transposition, as well as continuing acceleration, leading to the transformation to **f** at bar 188.

Common characteristics linking these blocks are evident, such as the use of registral progressions, (moving towards, or away from, a single point in musical space), and gradual accelerandi or rallentandi in notated form.

5.2.3 Movement 1 - Performance

The Kreuzter Quartet, Bergano, Italy. February 1994

The difficulties of rhythmic accuracy in this movement are evident in this performance. Many passages require exact alignment of the parts in order for the textures to be clear, a problem which could be resolved by the use of conductor, or a major revision of the notation of the piece. However, much of the excitement of this movement arises from these difficulties; some of this energy is lost without the visual impact of a live performance.

5.3.1 Movement 2 - Structure

This movement is a fantasia on four distinct melodic themes. Unlike the first movement, there is no schematic approach to structure in the use of proportions, and there is a tendency towards the free variation of material rather than systematic transformation. However, like the first movement, the music consists of juxtaposed and superimposed blocks. Example 13 shows an outline of the movement, indicating the three main sections and their components. Proportional relationships do exist, the second and third sections in total being nearly equal in length to the first. This example labels each sub-section and indicates which of the four types of material (**w**, **x**, **y**, **z**) are explored in each.

As in the first movement, a simple pitch sequence underlies the movement, moving up a tritone (C# to G) and then returning to the first pitch. The role of these "tonic centres" is more prominent in this movement, Sections 1 and 3 asserting C# as a point of focus, (examples can be seen at bars 1-3, 17, 166, 185 and 239). The transition part of Section 1 progress to G, the central pitch of the middle section.

Section 1 consists of an exposition of the main ideas and a development concentrating on two of the themes presented. The third part acts as a transition to the next section but can also be regarded as a recapitulation of the opening (the first cello melody in a varied form). The exposition opens with series of brief statements, (bars 1 - 10) presenting each theme as a single line, in the cello, violin 2, viola and violin 1/cello respectively. The remaining part creates new variations of the viola theme **y** (such as at bar 20 and 25) which become significant in their own right, alternating with a two violin refrain developing the first theme,**w**. The "development" section presents three brief verses on theme **z**, alternating with a derived form of **y**, which also intrudes into the second and third verses. This section progresses by chromatic sequential repetition from D (bar 43) to C# (bar 79), leading to the climactic 'cello solo at bar 88.

Section 2 involves a process of gradual transformation, the climactic angst of the previous music dissolving into a cold, expressionless world. Fast, agitated fragments (theme **x**) increasingly intrude into this texture, leading to the fast rhythmic music of Section 3. There is a systematic approach to structure, in pitch and duration, concerned with a transformation of theme **w**. This is described below.

The larger part of Section 3 involves reworking three of the four themes in the form of rhythmic, alternating sections. Sequential repetition is used often. The final part is a short coda, recalling the original version of theme **w**.

Throughout the movement common devices are evident. Sequential repetition is a significant element, in defining some themes (see below) and as a simple device for prolongation and musical development. The second common element is the tendency to use two part textures, either in the form of two instrumental lines alone or a two part division of the full ensemble. There are many examples in the piece; also, the central transformation section (bar 112) itself presents two textures, cross-fading from one to the other.

Example 13

	Section 1		
bar no.	1	43	88
duration	117"	108"	43"
section	exposition	development	transition
material	w x y z...	z/y	w

	Section 2		**Section 3**	
bar no.	100	112	143	229
duration	39"	102"	110"	35"
section	prelude	transformation	toccata	reprise
material	w	w x	w/z/y	w y

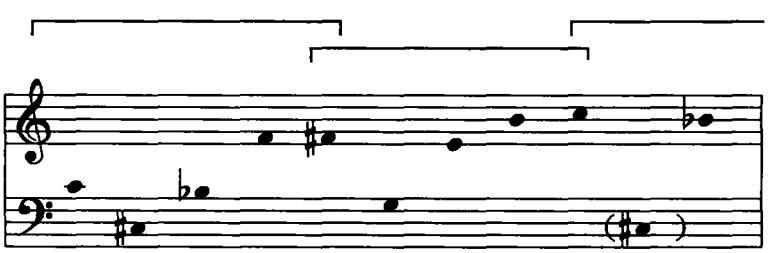
5.3.2 Movement 2 - Thematic material

Each of the four themes stated at the opening undergoes variation or transformation during the course of the movement. As in Movement 1, the material is characterised by interval content; however, more traditional motivic features - melodic contour, rhythmic ideas - are also significant.

Theme **w** (cello, bars 1 - 3)

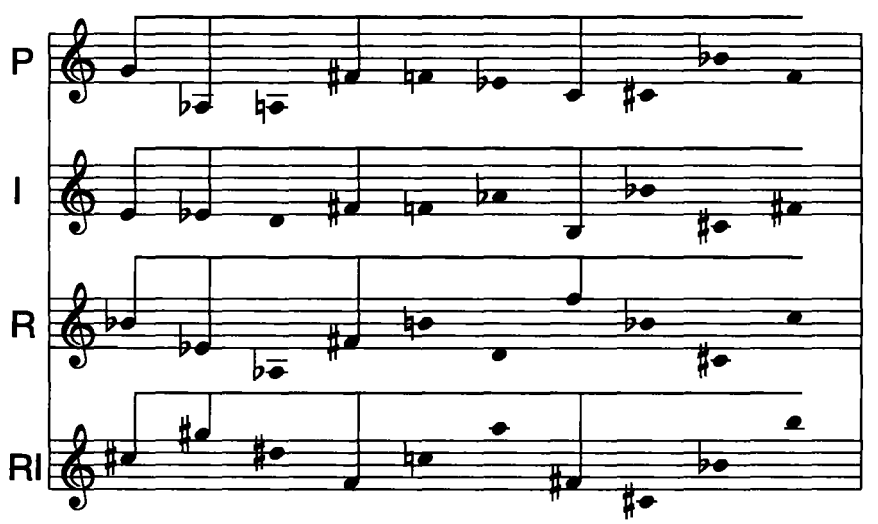
The pitch content of the opening 'cello melody is shown in example 14; the theme consists of two groups of notes in sequence, a tritone apart. The characteristic intervals (major 7th and 6th, perfect 5th, minor 2nd) are retained on every occurrence of the material. The variations involve sequential repetition and rhythmic transformation.

Example 14



The Section 1 presents simple textural/rhythmic variations, in the violin refrains mentioned above, and the final 'cello solo (bar 88). The derivations explored in Section 2 are more complex. The purpose of this section is the transformation from quiet, distant music to fast agitated gestures (theme **x**), which gradually dominate in preparation for Section 3. The fragmented melodies are derived from theme **w** in a quasi-serial approach, in both pitch and rhythm. The "prelude" section (beginning at bar 100) presents segments from **w** in successive phrases of 1 - 4 notes each. The initial pitch of each short phrase (or note) is determined itself by **w**. Example 15 shows the pitch matrix used for violin 1, in the "transition" section (beginning at bar 112), the first line of which also uses the principle of an unfolding pitch series based on **w**. Further lines are generated by conventional serial transformations. Pitches for violin 2 and the viola are generated by different readings of this matrix (in inversion and transposed a tritone, respectively).

Example 15



As in the "prelude", phrases in this section again grow repeatedly from 1 - 4 notes, a process is disrupted by the intrusion of the new, faster material. A cycle of durations is also used, which determines the length of single pitches (or the length of the new phrases when they occur, beginning at bar 118, violin 2). The duration cycle is simple, but based on a different basic unit for each instrument. For example, the durations in violin 1 from bar 113 are obtained by a series of 6 values, (initially 1, 2, 3, 4, 5, 6) to which a single value is added each time (2, 3, 4, 5, 6, 7 etc.). The unit used is a semiquaver; violin 2 also uses this cycle, but with a basic unit of one triplet quaver.

The variations in Section 3 are more traditional, presenting the melody in fast, even rhythmic values, rising in sequence through the instruments (this textural effect echoes the imitative variations on theme **y**, for example at bar 25). The subtractive process in rhythm (8 notes at bar 143, 6 notes at bar 146 etc) reflects the durational scheme in Section 2. This version of **w** is the basis of the accompanying figures in

the passages beginning at bars 166 and 206.

Theme **x** (violin 2, bar 4)

This resembles the textural material **a**, **b** and **c** of Movement 1, consisting of characteristic intervals (minor 7th, major 3rd, major 2nd) and a simple instrumental effect (staccato notes in fragmented phrases). As described above, this theme becomes dominant in Section 2, gradually displacing the slower moving derivatives of **w**.

One of the transformations of **y** (first heard at bar 20) can be regarded as a synthesis with this material, producing a dense texture. This relationship is reinforced by the use of intervals characteristic of **y** in the development of this theme during Section 2.

Theme **y** (viola, bars 6 - 8)

This material, which is most dominant in Section 1, contains two elements which undergo independent development. The first is a melody characterised by grace notes and intervals of a tritone, minor 3rd, and 2nds. This is developed during the second and third verses of Section 1, "development", (bars 56 and 70) but has greatest prominence at the climactic moments of Section 3, at bars 166 and 206. In both passages the melody is presented in counterpoint between the cello and violin 1; for the second appearance, both parts are transposed by a tritone and the counterpoint is inverted.

The second element also uses small melodic intervals but is characterised by an aggressive series of rapid attacks (for example, viola, bar 8 beat 2). This develops rapidly during Section 1 creating a dense "micro polyphony". This is featured as the refrain passages of Section 1 (bars 41, 52, 66). The second transformation first occurs at bar 25; a series of imitative entries rising through the register. During this music the constituent intervals are modified, (for example in violin 1, bar 28), producing wider leaps. This alteration, emphasising rising/falling major 7ths, relates **y** to the first theme, **w**.

Theme **z** (violin 1 and cello, bars 8 - 10)

This material is characterised by a melodic descent through the intervals of major/minor 3rds and a tritone, and is derived from the final extended violin 1 melody of movement 1. In the "development" passage Section 1 the theme is stated through rising sequential repetition in three verses (bars 43, 56, 70). In these passages, the melody is presented in polyphony, in which one voice is inverted. On each repetition, the intervals of the melody are expanded by the addition of one semitone, producing contours of ever-widening leaps.

In Section 3, the theme is presented in octaves, as in the first occurrence at bar 8, but in fast, even rhythmic values. The theme is repeated through a descending sequence, the note order of each being rearranged. This functions as a recurring fanfare, leading to the reappearance of theme **y**. At bars 161 and 199, the melody is

presented in canon between the inner and outer parts.

There has been no discussion of the harmonic language of this movement, as the material employed is of a linear nature. However, there are a number of recurring chord types, which are expanded cluster or scale fragments (for example, the chords at bars 3 or 26) and are therefore related to some of the pitch material explored in Movement 1.

5.4.1 Movement 3 - Structure

The final movement is introspective and lyrical; of the three it is the shortest, simplest in form and most consonant in harmony. This was intended as a coda or epilogue in the overall structure of the composition, contrasting to the high level of activity sustained throughout most of the first two movements.

The structure is palindromic, but not in a strict form. Example 16 shows the overall form of the movement; the timings given are less relevant in this example, as the relative proportions of component sections were intuitive. However, Section 3 (a compressed recapitulation) is related by a Golden Section proportion to Section 1. Upper case letters are used in this example to show the component blocks of each section (these are not rehearsal letters). Lower case letters indicate the derivation of the material from either Movements 1 or 2. The purpose of these references was to create nostalgic "echoes" of previously heard material, radically transformed in style.

The ternary structure of the movement focuses on simple climactic points, Section 1 building with increasing rhythmic activity towards the violin 1 melody of bar 50. Section 3 forms a reverse shape, although it is evident from example 8 that the material is not presented in exact reverse order. The central section acts as an interlude, with brief literal quotations of earlier material. As in the previous movements, there is a simple underlying pitch structure, each Section focussing on a specific pitch. The outer sections reaffirm C (the dominant pitch of Movement 1) and the central section emphasises the principle pitch of Movement 2, C#.

Example 16

	Section 1 (3'23.5")				
bar no.	1	15	23	38	50
duration	62"	29"	21"	41.5"	50"
material	A	B (Mvt 1: e)	C (Mvt 1: bar 171)	D (Mvt 2: y)	E (B variant)

	Section 2 (1'51")		
bar no.	65	77	100
duration	24.5"	67.5"	19"
material	F (Mvt 1: c)	viola solo (Mvt 1: d, Mvt 2: y/w)	C' (Mvt 1: bar 171) F' (Mvt 1: c)

	Section 3 (2'01.5")			
bar no.	113	124	130	137
duration	37"	14.5"	32.5"	37.5"
material	D' (Mvt 2: y)	E' (B variant)	A'	B' (Mvt 1: e)

5.4.2 Movement 3 - Thematic derivations

The principle material of this movement is derived from the repeating cluster theme of Movement 1 (**e**). This is the basis for the chordal material developed throughout Sections 1 and 2, which is transformed with the addition of new melodic lines (as in **B** and **D**) or textural variations (such as the tremelandi in **D**). The lyrical melody heard at bars 15 and 50 is taken from the last variation of **e** in Movement 1 (bars 239 - 242). The harmonic content of the material is clearly modified in this movement, exploring new interval combinations largely taken from the thematic blocks of Movement 1. For example, the opening chord, containing the intervals of a perfect 4th and major 2nd, is taken from theme **c** of Movement 1; the second chord (containing intervals of major/minor 3rds) is taken from theme **b**.

There are three other significant derivations, as indicated in example 16. The viola theme of Movement 2 (**y**) forms the basis of the new melodic material beginning at bar 38 (**D**), and the quiet interlude (**C**), characterised by harmonics, reworks the "transformation" section of Movement 1 (beginning at bar 171). Section 2, which contains a series of references, is framed by a variation of theme **c** of Movement 1.

The most striking feature of musical style in this movement, contrasting to the previous music, is the exploration of tonal allusions, achieved through distorted tonal progressions of a similar kind used in the **Two Nocturnes**, and a more obvious assertion of the dominant pitches (C and C#). In the structure of the entire quartet, this, in addition to the simple nature of the structure, was intended to create a sense of resolution.

6. She tells her love while half-asleep

6.1 Introduction

This composition was originally a short setting for soprano, alto flute and viola, written for a workshop given by members of the Cambridge New Music Players in 1991. The final version was lengthened and expanded to include cello and harp, and was selected as the winning piece for the SPNM Composer's Day at the 1992 Huddersfield Festival of Contemporary Music.

The attraction of Graves' poem was partly its concise form of expression, creating the possibility of a dialogue between short vocal intonations and instrumental responses. However, it was mainly the strength of the poem's image which seemed to invite a musical interpretation. The central simile of the text is an expression of Grave's individual doctrine of the poetic personality, also explored in his treatise, "The White Goddess". Inspired by an understanding of early matriarchical religions, Graves formulated a metaphorical concept of the "Triple Goddess", (Mother, Lover and Crone). This can be seen as an incarnation of spring, summer and winter (or birth, fulfilment and death), but also of the creative forces at work in the mind of the poet. These ideas are clear in the imagery of the poem, which could perhaps be interpreted as a lullaby, a love poem or a pagan hymn to creation; all three images seemed to allow many musical possibilities.

She tells her love while half asleep,
In the dark hours,
With half words whispered low:
As Earth stirs in her winter sleep
And puts out grass and flowers
Despite the snow,
Despite the falling snow.

(Robert Graves)

This setting was conceived as a series of distinct vocal phrases, framed by a number of instrumental interludes. The music is characterised by the use of short melodic fragments, which may be gestural and colouristic, and the brief appearance of subtlety changing ostinato figures. The texture is fragmented and fluid; there are momentary condensations into denser music, balanced by solo passages. These accumulations underpin the structure of the piece, dividing the lines of the text, and progressing towards the climactic section setting the line "and puts out grass and flowers" (bars 65-68, 76-83). Generally, the texture is not intended to be contrapuntal, but is mostly based on the fragmentation of a simple underlying linear movement, articulated by colouristic effects and the interposition of short ephemeral melodies.

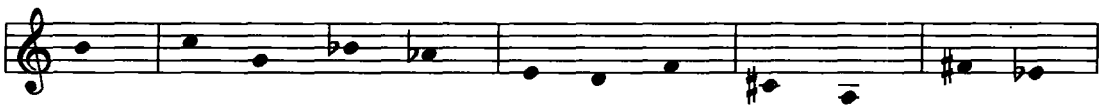
There are number of related motives, characterised by interval or melodic contour, but these are essentially superficial in the original construction of the piece. All linear movement is governed by a sequence of chords of predetermined register. Consequently, the music consists of a series of horizontal "explosions", either

juxtaposed or overlapping. This restriction was enforced strictly in the original version of the piece, but the underlying harmonic rhythm was not predetermined. This fluctuates freely according to the requirements of the evolving musical textures, in turn responding to the demands of the text. The revised version of the piece adopts a more liberal use of octave doublings to provide additional colour when required.

6.2 Pitch system

The harmonic sequence was devised using the technique of chord multiplication, using interval cells taken from the following twelve-note row:

Example 17

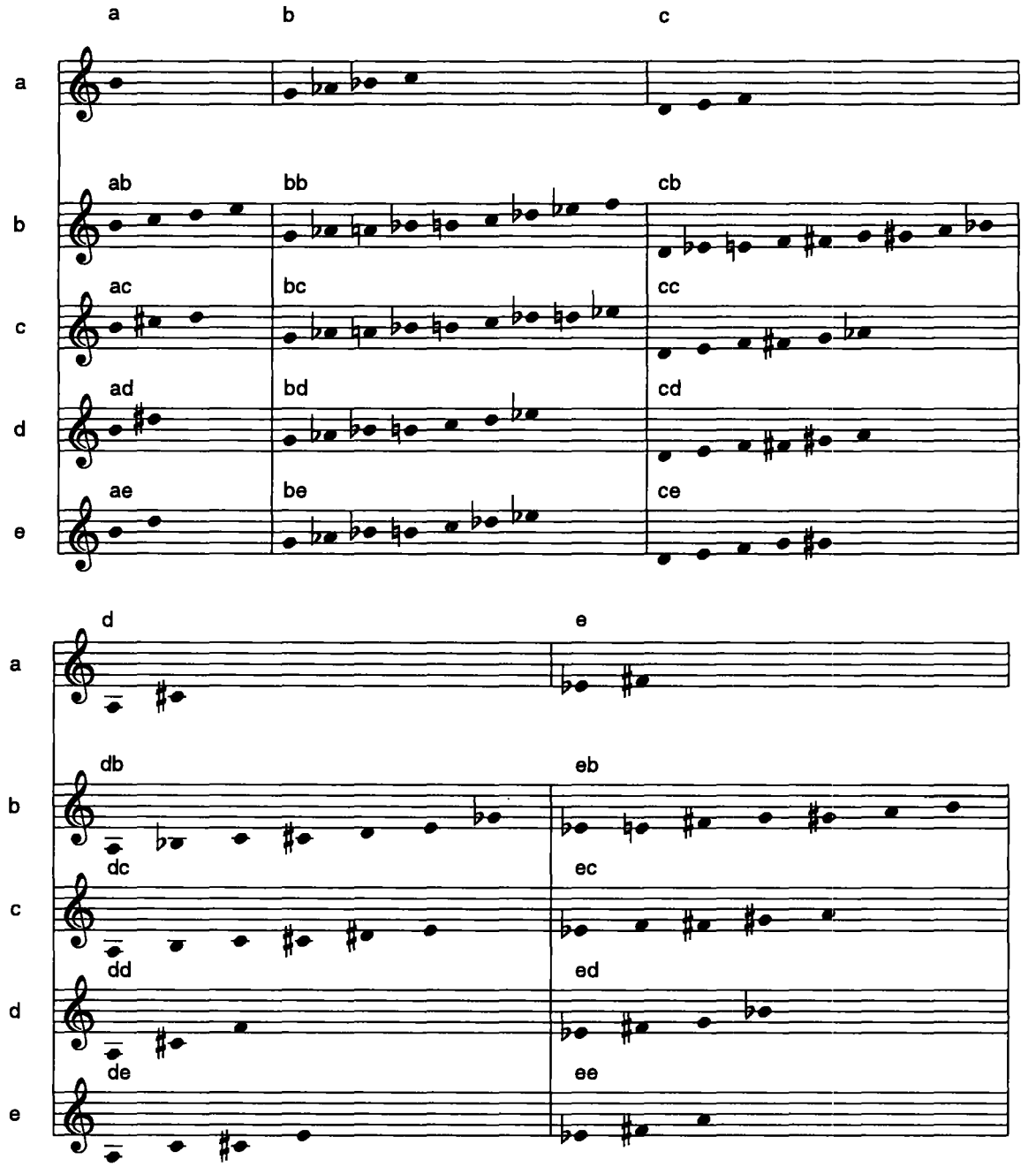


The pitch groups generated by this process is shown below in example 18. The original set (row **a** in example 18) is disregarded, producing a matrix of 4x5 pitch cells. There is a range of densities, from 2 to 9 notes, and there are closely related families of pitch sets (such as columns b, c, d, e) or interval cells (such as **ed** and **de**) which results from the associative character of the multiplication process. In the music, the order of presentation of these pitch sets is essentially arbitrary, in that the predefined sequence of cells is followed strictly throughout. This method is related to Boulez's approach in the vocal setting of Char's "L'artisanat furieux" in "Le Marteau sans Maitre".

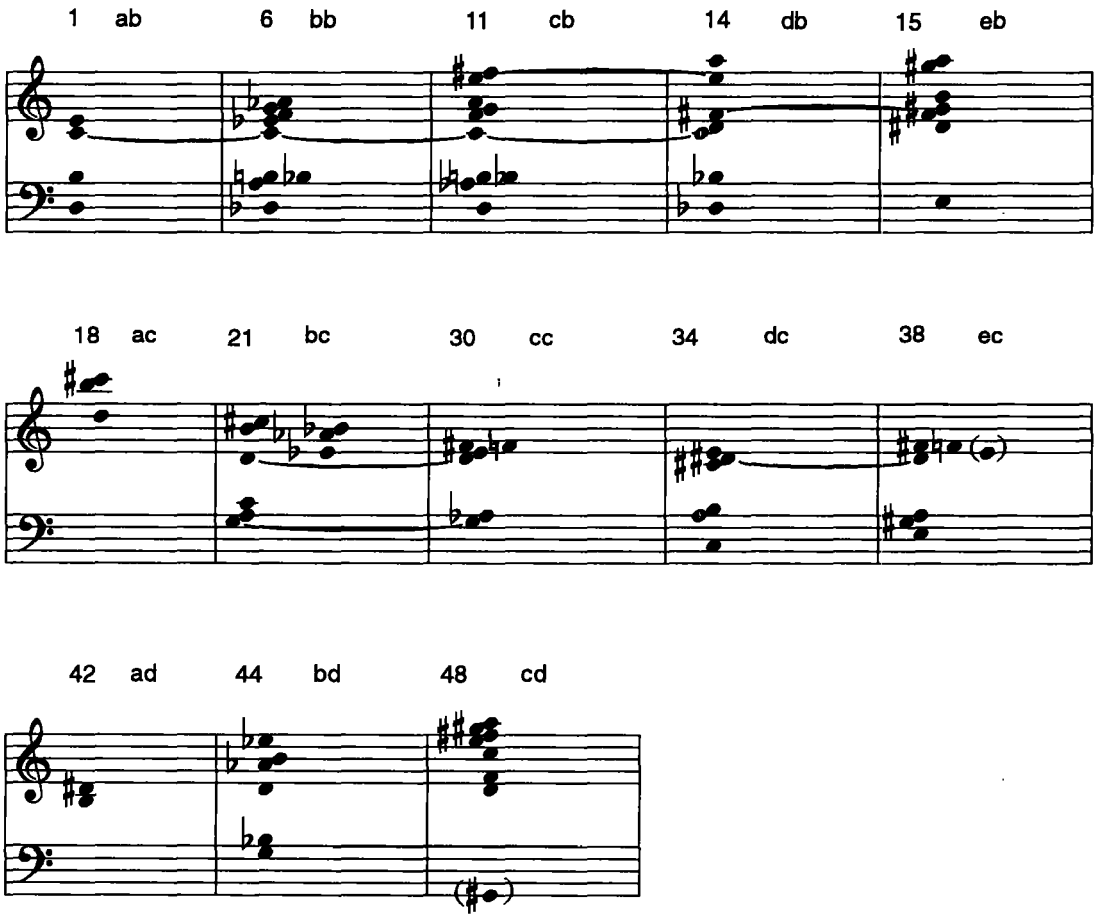
In creating a series of chords, interval relationships between the pitch groups are explored, emphasising smaller units within the larger groups. (For example, compare the arrangements of **ac** and **bc** in example 19). In allocating a registral position to each chord, careful consideration was given to the use of static pitches (shown by the tied notes in example 19), chromatic voice-leading between chords, or the deliberate avoidance of either. During the compositional process, the original registral plan was adjusted regularly; example 19 shows the fundamental harmonic structure for bars 1 - 48 as it appears in the score.

Although this harmonic system is the most important element of the structure, two other related devices are significant. A simple three note pitch set, characterised by the intervals of a 7th (major/minor) and major 2nd or minor 3rd, occurs often in a free variety of forms or melodic contours. To an extent, the registral positioning of the pitches within groups was devised with this consideration in mind. The other significant device is in the role of the two pitches B and D, which occur at important structural points (not least at the beginning and end, but also at bars 18 and 87 for instance). Emphasis is avoided at other times; these two notes therefore act as a dual "tonic centre".

Example 18



Example 19



6.3 Structure

The approach to overall structure is intuitive, with the intention of creating a free rhapsodic form; this may be briefly summarised as follows:

Section	**Bar (rehearsal letter)**
1. Introduction	1

There is an accumulation of texture and intensity, introducing the viola, alto flute and 'cello in succession, with a progressive rise through the register of the principle line (alto flute entry to the 'cello treble line at bar 16). This builds towards the first vocal entry.

2. "She tells...whispered low"	21 (A)

The first three lines of the text are intoned in a series of brief phrases, reworking ideas from the opening material.

3. Instrumental Interlude 44 (C)

The first interlude presents a new arpeggiated viola theme, building towards a flute cadenza.

4. "As Earth... flowers" 56 (D)

The fourth and fifth lines of the text suggested the climactic section of the piece, which accumulates intensity through a series of peaks and troughs, characterised by rising linear movement.

5. Short interlude 88 (F)

Dialogues between the 'cello, voice and viola convey the sensation of decay, both in texture and through descending melodic movement.

6. "Despite...snow" & Coda 99

The final vocal intonation continues this process, leading to a reworking of the opening viola ostinato.

Approximate Golden Section proportions determine the main climactic points at bars 67 and 80 if exact durations are considered, although these were not contrived. The first occurrence of the word "flowers" in bar 67 is placed almost exactly at this point.

6.4 Performance

Ensemble Alternance with Sharon Cooper, conducted by Denis Cohen.
Huddersfield Festival of Contemporary Music, 1992
(subsequently broadcast on BBC Radio 3, Music in Our Time).

The performance is convincing, but there are a number pitch inaccuracies in the vocal line (bars 40 and 96-97).

7. Given Notes

7.1 Introduction

Given Notes was written originally for a composers' workshop given by the Northern Sinfonia in September, 1992. The submitted work is a substantially reworked longer version, composed for the University College of North Wales Symphony Orchestra, taking into account some of the likely technical limitations in performance.

This composition is a musical realisation of a series of images taken from a poem by Seamus Heaney, "The Given Note". The poem is one of a series published under the title, "Door into the Dark", characterised by a desire to explore the unchartered, darker areas of the subconscious, in which elemental forces are seen in opposition to the intellectual or spiritual facets of man. The central metaphor of this poem is concerns musical inspiration, or more generally, the sources of human creativity. A violinist is depicted as a reclusive visionary, improvising an intuitive music which has been conveyed to him by elemental natural forces. The music expresses and communes with these agents of the natural world; Heaney's pun on the word "air" is succinct, referring equally to a musical idiom and the natural element to which the sound is returned.

On the most westerly Blasket
In a dry-stone hut
He got this air out of the night.

Strange noise were heard
By others who followed, bits of a tune
Coming in on loud weather

Though nothing like melody.
He blamed their fingers and ear
As unpracticed, their fiddling easy

For he had gone alone into the island
And brought back the whole thing.
The house throbbed like his full violin.

So whether he calls it spirit music
Or not, I don't care. He took it
Out of wind off mid-Atlantic.

Still he maintains, from nowhere.
It comes off the bow gravely,
Rephrases itself into the air.

(Seamus Heaney)

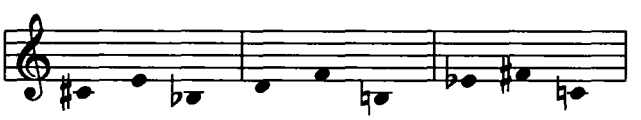
Several visual images in Heaney's poem suggested a musical interpretation in terms of motion, energy and mood rather than any programmatic depiction of events. The prominence of a solo violin in the orchestral texture is naturally a direct allusion to the poem, as is the recurring use of solo instrumental lines, representing an individual in the context of a more amorphous whole. The phrase "nothing like melody" was particularly suggestive, in the approach taken to thematic treatment. This is concerned with the free development of fragmentary melodic ideas and an exploration of colouristic textural effects. The poem conveys the strong impression of an ominous gathering of energy, then its release; this helped define the structure and rhetoric of the piece, which contains many transitional passages and rapid surges of momentum or density.

The piece uses two basic types of material; free improvised-sounding melodies, which are fragmented and abrupt or lyrical and meandering, and chordal material. The latter type is more significant, as much of the "melodic" material is in fact a realisation of harmonically conceived music. Also, the simpler chordal material (heard for instance in the central section of the piece) progressively gathers its own linear momentum. The distinction between these two basic types is consequently rather ambiguous. There are three main sections in the piece, dividing into a series of blocks, in which different aspects of this relationship are explored.

7.2 Tonic centres

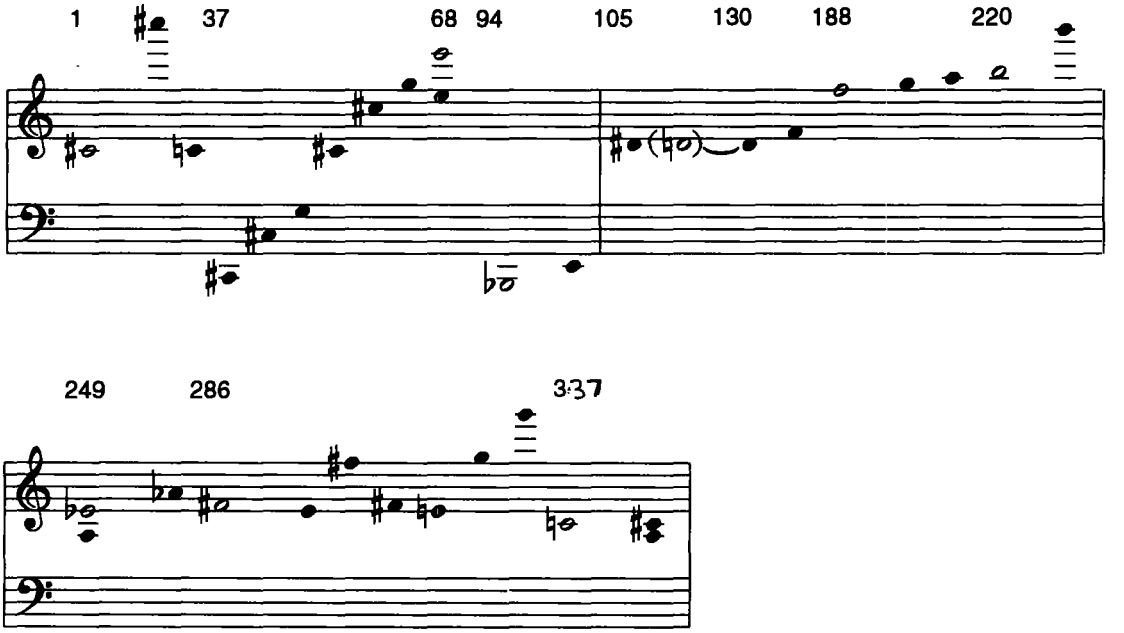
The three main sections each have a series of "tonic centres". These appear as pedal points, or are used as an axis of symmetry in the harmonic construction of some sections. The basic pattern of pitches used, which follows a simple sequence, is shown in example 20. The division into three cells corresponds to the three sections of the composition, explained below. Their actual appearance in the score, with registral position, is shown in example 21 (white notes); bar numbers are given as a reference.

Example 20



Areas of stability, defined by the use of pedals, contrast to transitional passages, which "seek-out" new underlying pitch centres. This is achieved through the use of intermediate pitch centres, which are shown as black notes in example 21. These appear as prolonged "leading notes" (before bars 37 and 337), or as octave displacements of the principle pitches (after bars 37 and 220). They also link the principle pitches by means of a progressive linear movement, as occurs between bars 37-68, and 188-220.

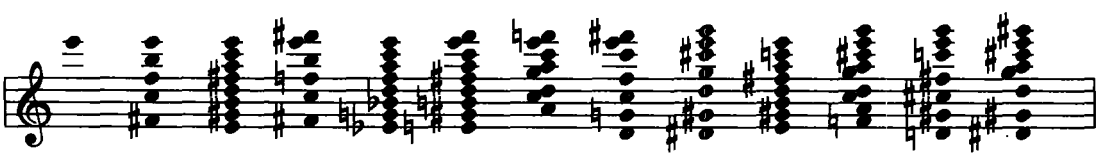
Example 21



7.3 Harmonic organisation

Harmony is generated from two classes of chords, defined by their intervallic character; thirds (major and minor), fourths (perfect and augmented). A derived chord of thirds and seconds is also used. Example 22 is a harmonic reduction of bars 68 (F) to 86 (H), showing one use of this technique, in which the harmony is orientated about a simple pedal point, E. Octave doublings, which are used to enhance the strength of the texture, are not shown. All three types of chord are employed, and are juxtaposed to create internal voice leading. In the music itself, the woodwind and trumpet parts progress through the harmonic fields, employing free melodic use of the given pitches; the pedal E is emphasised in the string section.

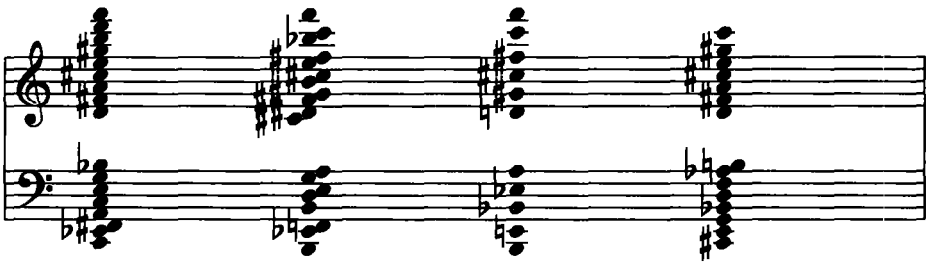
Example 22



The central section of the piece, beginning at bar 105 (J), is derived from a series of harmonic fields occupying the entire available register, which can be similarly classified by their intervallic character. Subsets of pitches are derived from the fields to give a number of chords, exploiting adjacent notes (preserving the distinctive

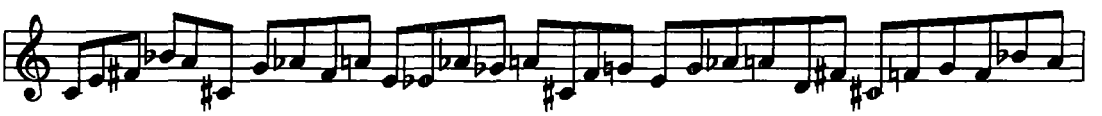
intervallic character) or disparate notes from across the register. Example 23 shows the harmonic fields used in bars 105 (J) to 131.

Example 23



The sections which concentrate on freely evolving melodic lines (such as bars 39 - 67 and 251 - 271) develop small interval groups which are distantly related to subsets of the harmonic fields by transposition and inversion. Illustrations are shown in example 24. These ideas are more important for their own melodic character, and are developed freely to give the "improvisatory" material referred to earlier.

Example 24



Melodic lines also give rise to resultant harmonies, through the use of resonance. Pitches taken from the principal melodic line are sustained by other instruments, producing moments of denser texture, occurring for example between bars 39-67. This "giving" of notes was intended as a musical pun on the title of the piece.

7.4 Structure

Although the overall structure is essentially rhapsodic in character, the three sections function on one level as exposition, development and recapitulation. Section 1 forms a self-sufficient arch-shape, presenting a series of musical blocks; section 2 builds through a series of peaks and troughs to the climactic first part of section 3, exploring derived melodic/harmonic ideas, but is not developmental in a traditional sense. More obvious repetitions of the opening material occur, with variations, in section 3, before the extended coda. The numbering of sections below, and the titles of each part, do not appear in the score; these terms were useful in describing the construction and characteristic elements of the piece.

Section 1	**Bar (rehearsal letter)**
1. Introduction and Dirge	1
2. Recitativo	37 (C)
3. Flourishes and Fanfares	68 (F)
4. Coda	94 (I)

A hesitant introduction, involving brief violin and woodwind cadenzas, proceeds to a chordal section articulating a single pitch (middle C) in which motivic fragments explored in the next section are anticipated.

The recitativo music was composed with the free exposition and development of short melodic ideas (shown in example 24). The overall effect is of an accumulation in texture progressing towards the tutti at bar 92 , accompanied by a progressive rise in register in the principal line; the rhapsodic melodies gradually climb upwards and gather in density using the resonance techniques described above. The section is transitional, in terms of the underlying pitch centre, progressing from C# (at different registers) to E at bar 68. The next section introduces the harmonic articulations described earlier, revolving around the sustained pedal note E; the climactic descending brass fanfare concludes on a low Bb, which acts as the new pedal point.

Section 2	**Bar**
1. Three Dialogues and Two Cadenzas	105 (J)
2. Three Fanfares	188 (P)
3. Frenetico	220 (R)

The first part may be considered as a set of variations with refrain. The dialogues occur in the exchange of chordal material between the string and woodwind sections, and also between these and increasingly intrusive fragmented melodic ideas (derived from Section 1). There is a gradual intensification of textural density, dynamics and rhythmic activity, interrupted by the violin/woodwind descending cadenzas. The points of rest at bars 130 and 162 focus on the pitch centres implicit in the harmonic organisation of each respective previous passage (D and F; example 23 illustrates the first of these).

The most agitated and aggressive music of the piece begins with the series of three brass fanfares, which rise sequentially towards the new pitch centre of B (reached definitively at bar 234). The passage marked "Frenetico" is a variation of the "Flourishes and Fanfares" material; the strident string chords at S refer back to the sustained chords heard at the close of each "Dialogue".

Section 3	Bar
1. Recitativo (Variation)	251 (T)
2. Trills and Distant melodies	280 (V)
3. Dirge (Reprise)	325 (Z)

The opening section begins in the manner of a recapitulation, reintroducing the recitativo material in a declamatory style. This is fused in alternation with the woodwind "Flourishes" material heard separately in Section 1. The progressive intensification of these ideas leads to a string unison passage in which the melodic ideas are transformed into a textural effect (ie. trills).

The remaining sections form an extended coda, to be heard as a dramatic aftermath. There are a number of fleeting references to earlier material in solo instrumental parts, proceeding to a rising, but slow and monumental, brass fanfare. This process repeats, leading to the final section which reworks the solo violin material of Section 1 and the "Dirge" music. Despite the dictates of the original plan of "tonic" centres (example 1), the music ends with an emphasis on C#, which seemed appropriate in the context of the recapitulatory design of the final section.

7.5 Performance

University College of North Wales Symphony Orchestra, Bangor, February 1994

Although the performance has great conviction, there are some problems in rhythmic accuracy and balance, especially in the woodwind section. The are also some problems in the recording acoustic, which tends to blur some sections of the piece which require a less reverberant acoustic for all the individual parts to be heard adequately.

8. Chamber Concerto

8.1 Introduction

This work grew out of two short studies for flute, violin and piano, written for a workshop given by members of the Polyphonia ensemble in 1992. Both pieces explored the technique of isorhythm as a means of creating an underlying background structure. These experiments formed the basis of the first and third movements of this four movement concerto. The ensemble of twelve players retains the original three instruments, but is expanded to include a variety woodwind, brass, solo strings and percussion.

"Concerto" has been used as neutral title to denote a composition for large ensemble. However, the term clearly has many historical resonances. This composition explores the colouristic possibilities of the ensemble, but also seeks to bind instrumental groups together in tightly knit textures, reflecting the the literal meaning of the term, "in concert". Although the three instruments of the original studies remain prominent in the music, all the players are given an opportunity for soloistic display; the title therefore refers also to this solo virtuoso element.

The impetus to use isorhythm techniques arose partly from the drawings of the Dutch designer, Maurits Escher, whose work frequently explores the concepts of repetition, permutation and transformation. His most famous drawings create optical illusions and visual paradoxes, but many lesser known designs are more abstract in nature, using bizarre images (often of caricatured animals) woven together in complex geometric patterns; the transformation from abstract shapes to referential images is a recurring feature in some works. The isorhythmic movements of this concerto attempt to explore these ideas in music, using isorhythm as an abstract structural device which can dominate the musical rhetoric (as in the opening of Movement 1, or in the Refrains of Movement 3) or be submerged completely in the musical texture.

The concerto also draws inspiration from poetic references, which are most significant in the outer movements. Images are drawn from works by two American women poets, H.D and Emily Dickinson, which are quoted in full below. The poem by H.D., "Oread" (meaning mountain nymph or dryad), is an example of the imagist school. There is a single metaphor which fuses the images of a seascape and a pine-forest, combining the contrasting elements of violent motion and static points. The poem also reads as an incantation; the aggressive, surging music of the first movement draws its energy from this. Dickinson's poem differs in style and content, but also contains a single striking image; the sound of a buzzing fly coalesces with the daylight penetrating a window, in the confused perceptions of the persona; there is also a hymn-like quality to the verse. The final movement is restrained and elegiac in mood, and the high register string material refers to the sound described in the poem. The two poems offer complementary images; in simple terms, life (natural forces and growth) and death (decay and stasis).

Oread

Whirl up sea
Whirl your pointed pines
Splash your great pines
On our rocks
Hurl your green over us
Cover us in your pools of fir.

(H.D.)

I heard a Fly buzz - when I died -
The Stillness in the Room
Was like the Stillness in the Air -
Between the Heaves of Storm -

The eyes around - had wrung them dry -
and breaths were gathering firm
For that last Onset - when the King
Be witnessed - in the Room -

I willed my keepsakes - Signed away
What portion of me be
Assignable - and then it was
There interposed a Fly -

With blue - uncertain stumbling Buzz -
Between the light - and me -
And then the windows failed - and then
I could not see to see -

(Emily Dickinson)

The syllabic content of H.D.'s poem can be represented by the following numbers:

3 5 4 3 6 8

This series of values plays an important role in all four movements of the composition, determining both rhythmic ideas and proportional schemes (although the Golden Section proportion also plays a role). The appearance and transformations of this row are described below in detail for each movement.

A mathematical approach is also taken to the overall structure of the concerto, the relative duration of each movement corresponding to the proportions 1: 1/2: 2/3: 4/5 respectively. (The total duration of the work is 22.5 minutes). The structure of the whole work is simple; the first and third movements are the most dynamic, contrasting to the more restrained atmosphere of the second and fourth. The similarities in structure of the first and third movements are also paralleled in correspondences between the second and fourth. In addition, thematic material connects the outer movements.

8.2.1 Movement 1 - Structure and rhythmic organisation

The movement divides into seven sections, consisting of three verses alternating with three refrains, and a coda. Each verse is a prolonged elaboration of a single harmonic field; the refrains are transitional, modulating from one field to the next. Within the structure there is no literal repetition, but a constant variation of the musical material which is established in the first two sections.

Example 25 shows the overall structure of the movement; the verses and refrains contract on each occurrence, progressing to the coda. This contraction is determined by the use of isorhythm as the main structural device in the verses, the talea in each having a shorter duration than the last. As the number of talea statements is the same in each verse, the proportional relationship between verses is the same as between the duration of their corresponding talea. (This is distorted slightly by brief extensions to Verses 2 and 3). Although the final Coda, like the refrains, does not employ isorhythm, its duration is obtained by continuing the process of contraction which has occurred for each verse. Each refrain is approximately half (4/9) the duration of the preceding verse.

Example 25

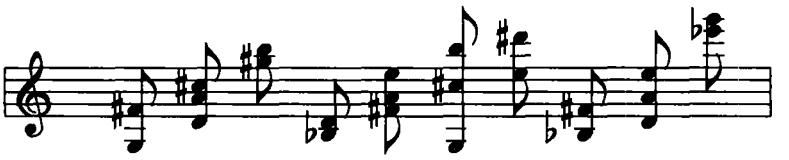
Section	**Verse 1**	**Refrain 1**	**Verse 2**
bar no.	1	66	90
duration	1'50"	49"	1'39"
talea	duration - 64 units		duration - 52 units
proportion		Verse 1 x 4/9	Verse 1 x 52/64

Section	**Refrain 2**	**Verse 3**	**Refrain 3**	**Coda**
bar no.	145	163	210	223
duration	40"	1'22"	31"	48"
talea		duration - 40 units		
proportion	Verse 2 x 4/9	Verse 2 x 40/52	Verse 3 x 4/9	Verse 3 x 28/40

The talea and color of Verse 1 is shown in example 26 (the derivation of the pitch material is explained below). The talea consists of 12 values, but can be considered in two halves, the second obtained by subtractive diminution. The second half of the talea consists of the original row derived from H.D.'s poem. Example 26 also shows the talea used in Verses 2 and 3, which are produced by subtractive diminution of the first talea.

Example 26

Verse 1 - color:



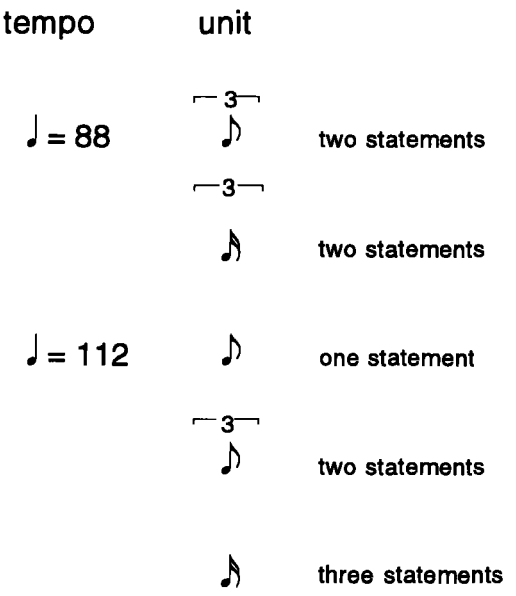
Verse 1 - talea: 4 6 5 4 7 9 : 3 5 4 3 6 8 (total =64)

Verse 2 - talea: 3 5 4 3 6 8 : 2 4 3 2 5 7 (total =52)

Verse 3 - talea: 2 4 3 2 5 7 : 1 3 2 1 4 6 (total =40)

The talea is stated 10 times in each verse. The basic durational unit employed is not constant throughout, but undergoes proportional diminution or augmentation. This scheme, which is the same for each verse, is shown in example 27.

Example 27

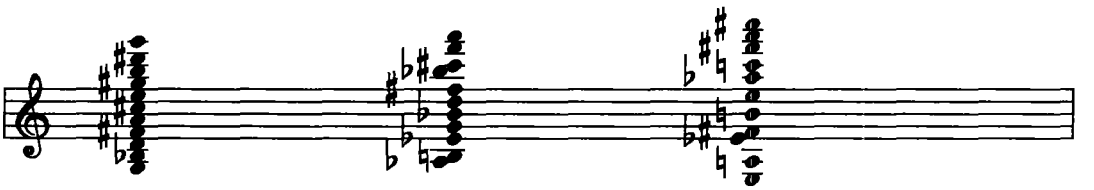


The refrains and coda do not have the rigorous rhythmic structure of the verses, but employ a free use of segments from the talea in the principle line (clarinet, alto sax, tutti and violin respectively). The clarinet solo of Refrain 1 is a wordless setting of H.D.'s poem, determining the basic number of notes (excluding elaborations) and phrasing.

8.2.2 Movement 1 - Pitch organisation and musical material

Three harmonic fields are used as the basis of the pitch material in this movement; as mentioned above, each verse concentrates on one of these fields. These are shown, in order, in example 28. The second and third fields are derived from the first by selective addition to the constituent intervals (initially, major and minor thirds). The first field is also used in the Coda.

Example 28



The color used in Verse 1 (example 26) consists of two-note chords taken from the first harmonic field; the colors for the later verses are taken from their own field in the same manner. This system is further complicated in two ways. Firstly, inversions of all three harmonic fields are also used, extending the chords downwards to the lowest available pitches allowed by the instrumentation. Each color therefore can consist of four-note, rather than two-note chords. In Verse 1 the lower pitches gradually appear with the introduction of more instruments of the ensemble. The second complication is the restricted use of a fourth harmonic field, a chord of perfect fourths ascending from G (below middle C). Pitches from this field appear as sustained notes which interfere with the color/talea process (the first example is the middle C at bar 7).

The refrains modulate from one harmonic field to the next by a simple cross-fade, the pitches of the next verse gradually intruding into the material of the refrain. Pitch treatment is generally more free, exploring subsets of the harmonic fields at different transpositions (this is used in the high register piano/xylophone material at bar 73).

Despite the high degree of technical contrivance which forms the basis of the movement, the musical effect is of a free and confused development of fragmentary ideas. The isorhythmic structure is never stated as a process, but as a framework which articulates the musical material. In sections of Verses 2 and 3, the structure is forced increasingly into the background, so that the color statements are absorbed into the texture. Most of the melodic material used is derived from the opening flute melody or the articulating chords and rapid tremelandi of the strings in the same passage. The character of these fragments refer to words taken from H.D's poem, such as "whirl", "points" and "hurl", which suggest a musical interpretation. One process of musical development is to distil the material, so that one type becomes temporarily dominant (such as at bars 135 - 144 or 187 - 193), however texture throughout most of the movement consists of superimposed layers of contrasting types of material. As mentioned above, the clarinet solo of Refrain 1 is a wordless

setting of the "Oread"; word-painting is used in a direct way (such as the music at bars 71-73 and 79 -81 portraying the phrases "pointed pines" and "hurl your green over us"). The later refrains do not correspond to the syllabic structure of the poem, but present variations of the musical material itself.

8.3.1 Movement 2 - Structure and rhythmic organisation

The structure of this movement forms a simple arch shape, the quiet sustained material of the opening becoming more agitated and rhythmically active, culminating the forceful declamations ending the first part. In the final section, the music returns to its initial character. There are two main parts, dividing the movement at the Golden Section point; the most aggressive music is heard just before and after this. Each part is divided into six small sections, the relative proportions determined by a numerical row derived by subtraction from the original. This is applied in retrograde form in the first part, and in the original order in the second, creating a distorted palindrome form in both underlying structure and the musical material heard. This is summarised in example 29.

Although isorhythm is not employed, durational values (such as the separation between a series of sustained notes) are obtained from selective diagonal readings from a matrix of values, shown in example 30. The matrix was produced by addition/subtraction of the original row. There was a degree of freedom in the use of these readings, employing the matrix as a resource rather than an element of systematic pre-composition.

Example 29

Section	**Part 1**			
bar no.	1	15	27	34
duration	56"	40"	16"	32"
proportion 1	7	5	2	4
proportion 2				
material	A	B	C	C

Section			**Part 2**	
bar no.	48	58	65	69
duration	24"	16"	10"	15"
proportion 1	3	2		
proportion 2			2	3
material	(C) hpchd cadenza	D	D (A - strings)	D

Example 29 (cont.)

Section				
bar no.	75	83	88	96
duration	20"	10"	25"	35"
proportion 1				
proportion 2	4	2	5	7
material	D	hchd cadenza	A'	B'

Example 30

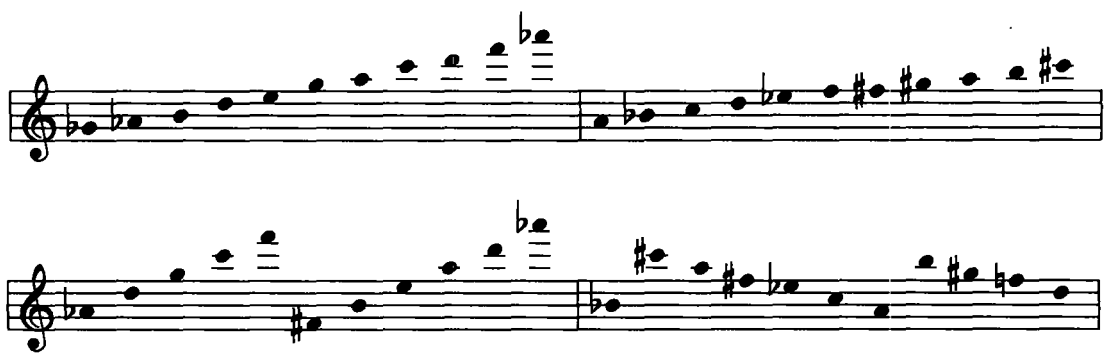
6 7 8 6 9 11
5 6 7 5 8 10
4 5 6 4 7 9
3 4 5 3 6 8
2 3 4 2 5 7
1 2 3 1 4 6

8.3.2 Movement 2 - Pitch organisation and musical material

The musical material retains the element of strong contrast characteristic of the first, but evolves gradually without sudden shifts in mood.

The pitch material is obtained from two transformations of the first harmonic field used in Movement 1, produced by diminution of the constituent intervals. These are shown in example 31, at the transpositions used in the opening section. The fields are employed in this section as an ordered series of pitches (shown in the second line of example 31), which are presented in alternation. The sustained character of the music combines the new series of pitches into three or four-note groups, which are developed independently of the original fields. This occurs in material **A**, **B** and **D** (see example 29) and the harpsichord cadenza material.

Example 31



The two fields are also used as static harmonies, in a similar manner to the Verses of Movement 1; the clarinet parts in material **B** (the second and final sections) use this method. Each instrument is confined to one of the harmonic fields, transposed to a low register. The fields are also used more freely as a resource to generate the rapidly flowing melodic ideas of material **C**. They progress through a series of transposition levels, gradually climbing in register to the climactic aggressive music.

8.4.1 Movement 3 - Structure and rhythmic organisation

This movement is related to the first, sharing common structural devices. As in Movement 1, isorhythm is used, but this is employed more consistently and is featured in the foreground of the music. Like Movement 1, this movement also consists of alternating blocks, but these are of much shorter duration. The isorhythmic music is heard solely in the piano part, and forms the basis of the Refrain sections. The overall structure also employs a system of proportions determining the length of each section. This was achieved by dividing the total time of the movement into two theoretical parts at the Golden Section point, the longer of the two parts having the duration necessary for the isorhythmic process to be fully worked through, given the number of the events in the color and talea. In practice, the two parts are broken up into six sections, the length of each section determined by the proportions of two numerical rows (derived from the original row used throughout the concerto). The twelve short sections produced were then alternated to give the structure shown in example 32.

Example 32

Section	**Refrain 1**	**Interlude 1**	**Refrain 2**	**Interlude 2**
bar no.	1	23	26	42
duration	39"	5"	29"	16"
proportion 1	8		6	
proportion 2		1		3

Section	**Refrain 3**	**Interlude 3**	**Refrain 4**	**Interlude 4**
bar no.	50	58	68	79
duration	14"	21"	19"	32"
proportion 1	3		4	
proportion 2		4		6

Section	**Refrain 5**	**Interlude 5**	**Refrain 6**	**Interlude 6**
bar no.	94	107	109	118
duration	24"	5"	15"	11"
proportion 1	5		3	
proportion 2		1		2

The talea employed in the isorhythmic refrain sections is shown in example 33. There are 11 values, using a semiquaver as the basic unit throughout, unlike the treatment of the talea in Movement 1.

Example 33

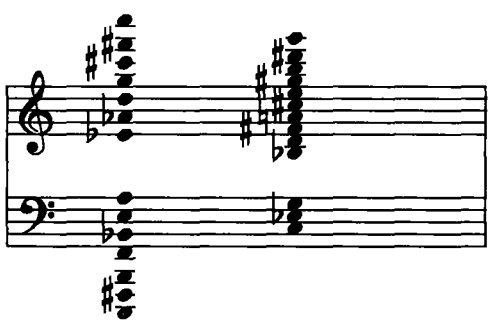
2 5 3 2 1 4 2 1 3 6 2

As in Movement 1, the non-isorhythmic sections (Interludes) are freer in rhythm.

8.4.2 Movement 3 - Pitch organisation and musical material

The chords of the color in the isorhythmic music are taken from static harmonic fields, as in Movement 1. There are two fields used, shown in example 34; the second is the same as the first field used in Movement 1, but is extended downwards. The first field shown below consists of alternating perfect and augmented fourths across the whole instrumental register. The color takes 11 subsets from the first field, varying in density from one to five notes, and 10 subsets from the second, again varying in density. The two groups of subsets are alternated two produce the color, which can be seen in its entirety between bars 1 and 7.

Example 34



The instrumental lines heard with the piano part consist of articulations or resonances of pitches occurring in the isorhythmic scheme. Some use is made of octave shifts in these lines for colouristic effect.

The pitch material of the interlude sections is derived from chords of the color, using the last two chords of the previous refrain. These are permutated by chord multiplication to produce a series of transposed chords which are freely employed. The material refers back to Movement 1; the arpeggiated figures to the refrain music, and the repeated notes/glissandi gestures to the string ricochet/glissandi articulations heard frequently throughout the earlier movement.

8.5.1 Movement 4 - Structure and rhythmic organisation

The final movement is most closely related to the second in terms of structure, an arch shape defining the form. However, Movement 4 divides into two parts, both of which are structured in this fashion. This movement is also related to the first and third in the use of alternating blocks, although in this instance the blocks are simple and thematic in character (labelled **A**, **B** and **C** in example 35, below). Like all previous movements, a numerical sequence is used to create a set of proportions, dividing the piece into sections. This is the most straight forward use of the device, in which the original six value set is presented in retrograde form. The six resulting sections are grouped together into two clearly defined parts; unlike the other movements, the remaining divisions are not always strongly articulated in the music.

As in Movement 2, there is a freer approach to rhythmic structure, the original set of durations used as a resource. For example, the violin music of bars 8-14 (material **B**) consists of six short phrases with the durations 3, 5, 4, 3 ,6 and 8 quavers respectively. As the music progresses, additive techniques are used. Similar methods are used to define the duration between the musical gestures of material **A** and the rhythm of the chorale-like material **C**.

Example 35

Section	**Part 1**		**Part 2**			
bar no.	1	36	56	68	85	104
duration	97"	74"	34"	49"	62"	37"
proportion	8	6	3	4	5	3
material	A - B	(B) - C - A	B	B (+C, flute)	C (+B, strgs)	A

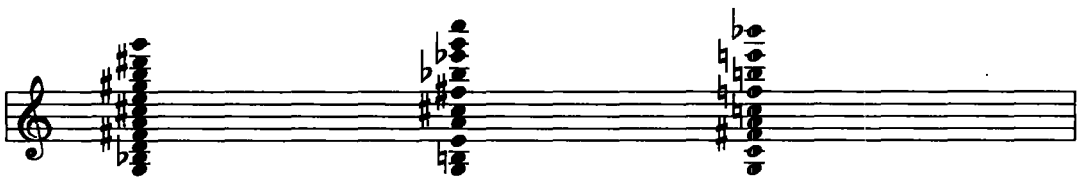
8.5.2 Movement 4 - Pitch organisation and musical material

The movement consists of variations on three clearly defined themes, all taken from Movement 1. All three types employ pitches derived from the three harmonic fields shown in example 36. The first field is also used in Movements 1 and 3, and the remaining fields are derived from the first by addition to the constituent intervals.

Theme **A**, characterised by the sonorities of the tubular bell, vibraphone and high register piano, is taken from similar material heard first in Refrain 1 of Movement 1 (for example, at bar 73). The pitch derivation is the same, freely exploring the harmonic fields transposed to a high register. Theme **B** is an extended development of the melody first used in the 'cello in Movement 1, bars 20-24, which is characterised by the use of major/minor seconds and thirds revolving about a central pitch. In this movement, the melody is transformed into a repeating ostinato pattern over a pedal note (usually G or C#), which undergoes subtle variations. This music is essentially static in character, although it does not strictly employ a harmonic field. This contrasts to the compositional method used in Movement 1, in which the underlying static nature of the harmonic fields contrasts to the fluctuating and rapid

activity of the melodic material presented. Theme **C** uses the overall melodic contour of the principle line in the Refrains of Movement 1 (for example, the clarinet melody in Refrain 1). The four note chords of **C** are subsets of the three fields shown below.

Example 36



This movement is related to the first in the referential character of the material. As described in the introduction, the music uses images taken from a poem by Emily Dickinson, which portrays the confusion and decay of human perceptions, in the act of death. The fragmented phrases of theme **B**, first heard in the high register of the violin, are intended as a evocation of the sound of a buzzing fly described in the poem, although this is not intended to be a literal effect. This melodic material is transformed and absorbed into the musical texture. The elegiac character of theme **C**, and the bell-like sounds of theme **A** take their impetus from the ironical religious references in Dickinson's verse. In the structure of the whole concerto, this movement acts as a resolution; the music is simpler in terms of both form and thematic treatment, and its character is subdued and static.

9. Colloquy - Discord

9.1 Introduction

The title describes two kinds of relationship; communication and conflict. The interaction between the live piano part and the tape in this composition explores these contrasting states. Both elements of the composition draw their material from a series of musical blocks for piano. The realisation of the tape part began with the recording of these fragments, which vary in length and character; no other source material was used, apart from one short vocal sound. The final tape presents a spectrum of sounds, varying from literal quotation to radical transformation of the original material. The live piano part similarly draws directly from the material, and also presents transformations of a more conventional kind.

The structure of the piece is not determined by a systematic treatment of the original material. This surfaces frequently, but momentarily, in the tape part; textures are generated by the free combination of the material and sounds representing varying degrees of transformation. Similarly, the two types of interaction between performer and tape occur freely throughout. A "Colloquy" occurs in the form of echoes, resonances and rhythmic synchronisation between the performer and tape. "Discord" is reflected in the mood of the outer sections of the piece, but more precisely describes moments of rhythmic confusion and high dissonance.

9.2 Musical Material

The six musical blocks used as the basis of this composition are shown in example 40 at the end of the chapter. Each block is characterised by its texture and register, and can be described as follows:

1: Forceful chordal attacks, wide leaps of register.

2: Short two part phrases, rhythmically complex, high register.

3: Repeated notes (accel. and rall.), trills, mid-register.

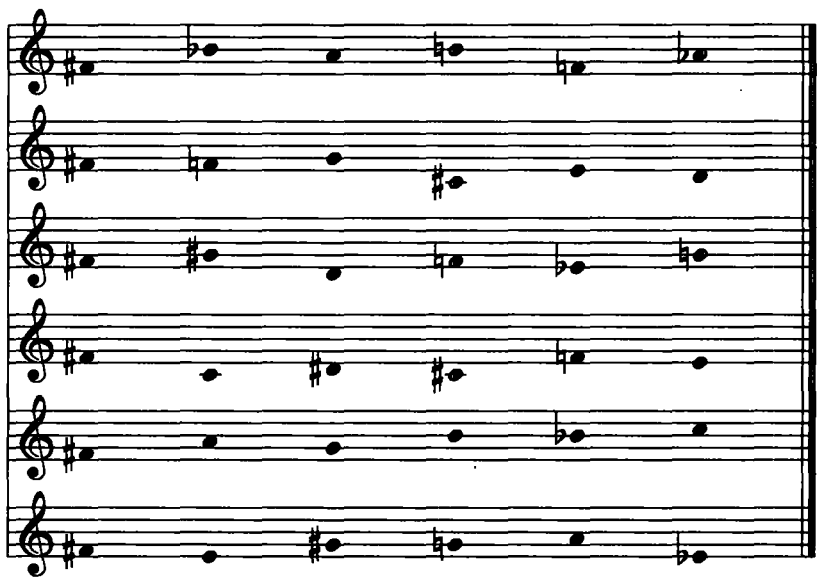
4: Slow sustained notes and chords, low register.

5: Fast arpeggios with wide sweeps in register.

6: Marcato single notes, even rhythm throughout .

Despite the strong contrasts between the material, some connections can be made, such as the use of low register notes (1 and 4), repeated notes/rhythms (3 and 6) and rapid movement across the register of the piano (1 and 5). All the material is closely related by its pitch derivation; this is taken from a variety of readings from the pitch matrix shown in example 37. This matrix is produced by rotational permutation of the first six-note group.

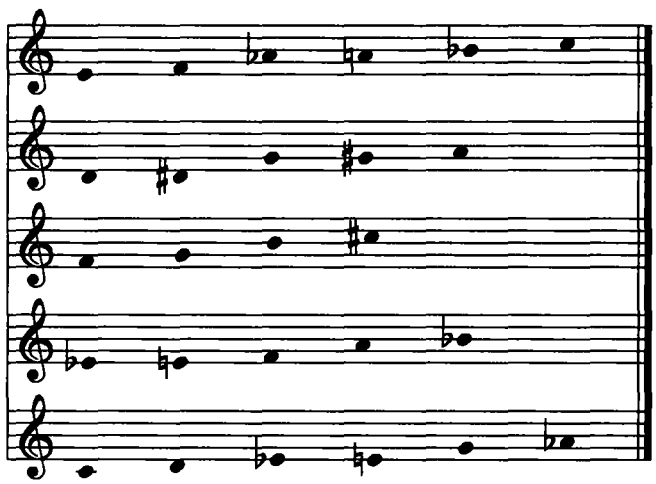
Example 37



Material 3 makes the simplest use of the pitch matrix, using the six notes of the first row freely. Material 2 is derived from simple readings of each row in turn, distributed across the two parts. A more contrived use of the matrix produces the series of notes for material 6; the matrix is transposed by a tritone, and readings are taken alternately in retrograde and normal forms, transposing the six notes of each row upwards by one semitone each time. This occurs twice, producing a total of 72 notes. Material 5 takes each row from the matrix (transposed by a tritone) to create six-note chords which, from higher register to lower, follow the order of notes strictly. These chords are also expanded by addition to the constituent intervals to produce two new sets; some of these chords are selected for the material itself.

Material blocks 1 and 4 use vertical readings of the matrix, which produces five groups of pitches (excluding the first column, F#); these are shown in example 38, omitting repetitions. The first and last rows in this example are related by inversion and transposition; the second and fourth rows are similarly related (the third row cannot be inverted). Material 1 uses all five rows as free pitch aggregates; the first bar in example 39 presents three gestures using the same six-note group (row 1). These recur in inversion and transposition by a tritone. Material 4 uses pitches taken from the first three rows.

Example 38



The original pitch matrix also plays a role in determining rhythmic patterns, using the intervals of the original six-note set to produce a row of values (denoting each interval in semitones). This is varied by augmentation and addition, and is used freely to create rhythmic ideas. Material 4 contains the simplest example, consisting of the following durations, the first six being the original set:

4 1 2 6 3 2 1 2 6 (crotchet unit)

Most of the material appears in its original form at some point in the composition, either in the piano or tape. The development of the material in the piano part uses simple techniques such as fragmentation and repetition; inversion and transposition by a tritone (devices employed in the construction of the original material) are also frequently used.

9.3 Sound Transformation Techniques

The six sections of the composition (described below) were each composed using a sampler and sequencer (Akai S3200 sampler and Notator Logic Audio 2.0). This allowed MIDI control of volume, filters and effects without recourse to analogue mixing. In addition, the following Macintosh software was used to produce a variety of transformations prior to sampling:

1. Sound Designer 2.7

Basic recording and editing of the material, fragmentation and looping, filtering, pitch shifting, gain changes, multi-band compression and expansion. Final editing of the six sections.

2. GRM Tools

Processing of sound files with a variety of DSP algorithms, including band-pass filters, resonating comb filters, pitch shifting, delay and Doppler effects. Real-time control of these effects during processing.

3. Reverb v.5.1

Processing of sound files with customised reverberation and echo effects.

4. Sound Hack v.0.2

Three algorithms were used:
Phase vocoder: Time stretching/pitch shifting.
Convolution: Fusion of two sound files, reinforcing common spectral characteristics. A recorded vocal sound was used as an impulse file, fused with time-stretched piano notes.
Vari-speed: Glissandi effects.

The majority of sounds on tape were created using a number of the available processes. The most frequently used techniques were editing and filtering of the original material, time-stretching and GRM Tools effects.

9.4 Structure

The overall structure is summarised in example 39. The composition divides into six sections; the length of the parts is determined by a series of proportions, which are taken from the numerical row derived from the intervals of the six-note pitch set. The piece can be considered in three large parts, grouping the shorter, outer sections together. These outer parts (sections 1+2+3 and 5+6) are characterised by rapid activity and aggressive gestures, complemented by the more static, contemplative middle section (4).

Example 39

Section	**1**	**2**	**3**	**4**	**5**	**6**
bar no.	1	31	38	53	100	125
duration	2'16"	0'34"	1'08"	3'23"	1'43"	1'08"
proportion	4	1	2	6	3	2

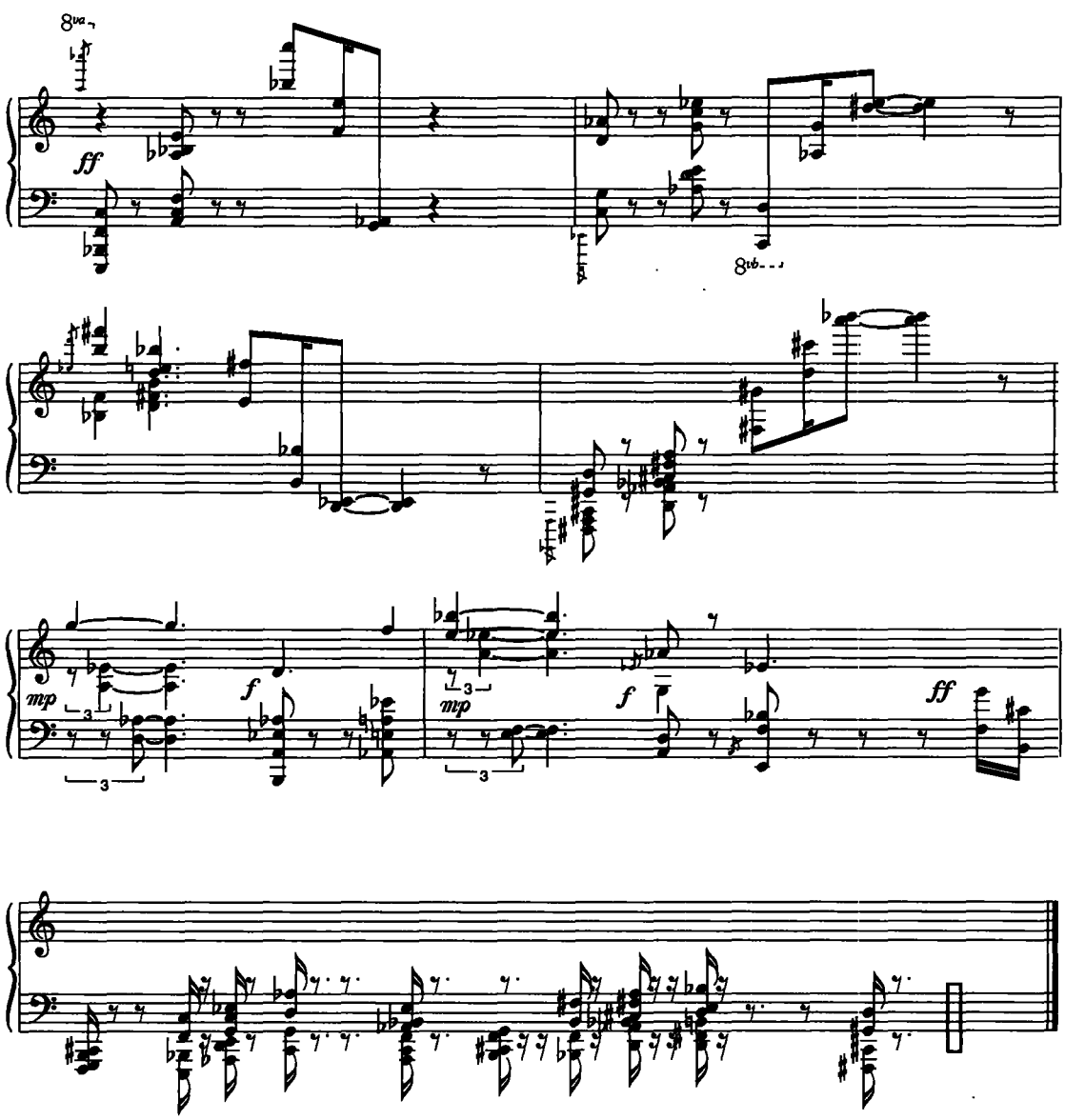
The original conception of the piece was to assign one material block to each section, however this proved too limiting, and presented problems of musical coherence. The composition is dominated by the development of material 1, 3 and 5, these blocks containing the simplest and most distinctive musical gestures. The remaining material is restricted to the latter part of Section 4 and the final two sections.

9.5 Performance

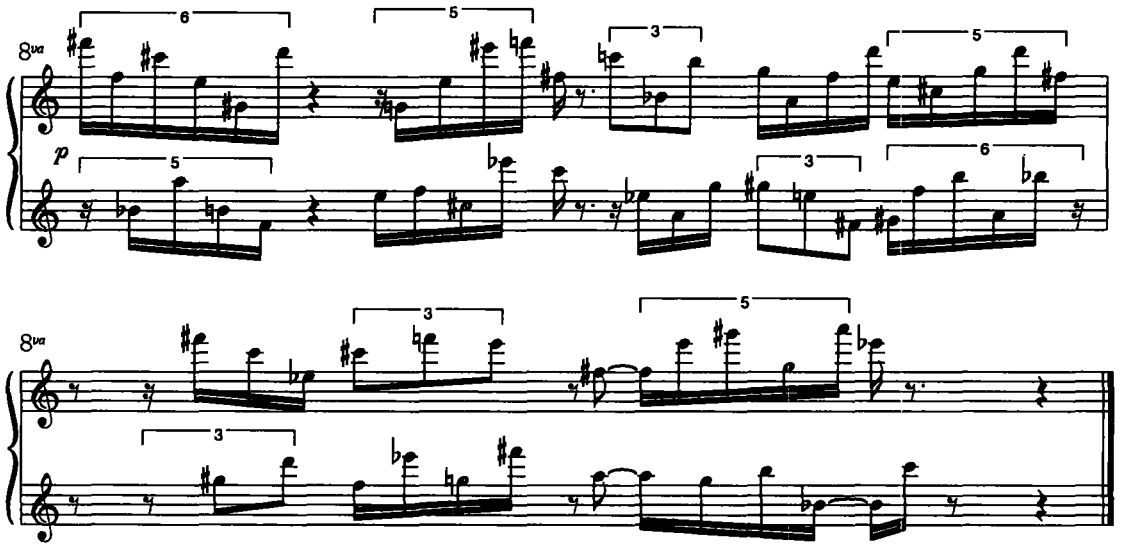
For this studio recording, sections of the piece were recorded independently and edited together in combination with the tape part. Final mixing involved an exaggeration the dynamic range of the tape part, which is compressed to preserve a reasonable signal/noise ratio; a similar procedure would be necessary in performance. Live performance would also require a click track, synchronised to the tape, for the benefit of the pianist.

Example 40

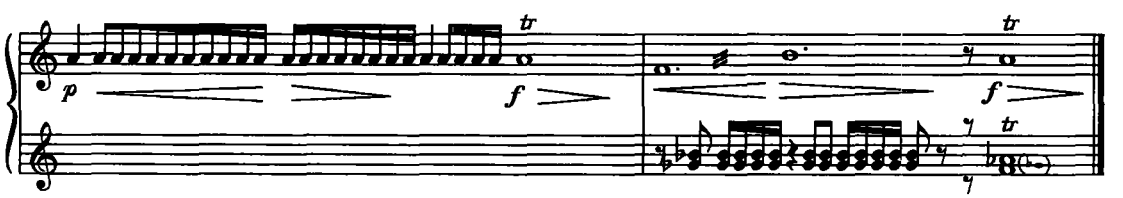
Material 1



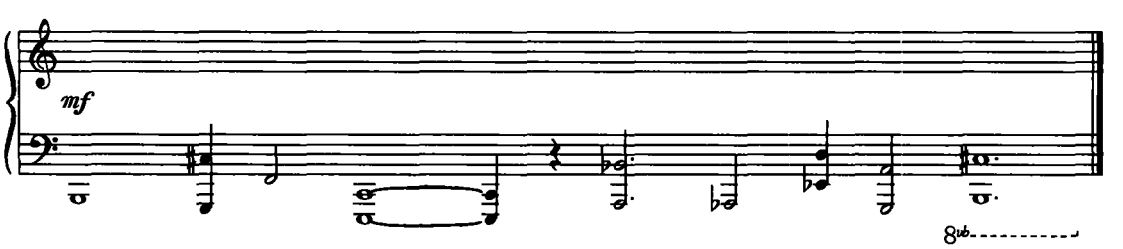
Material 2



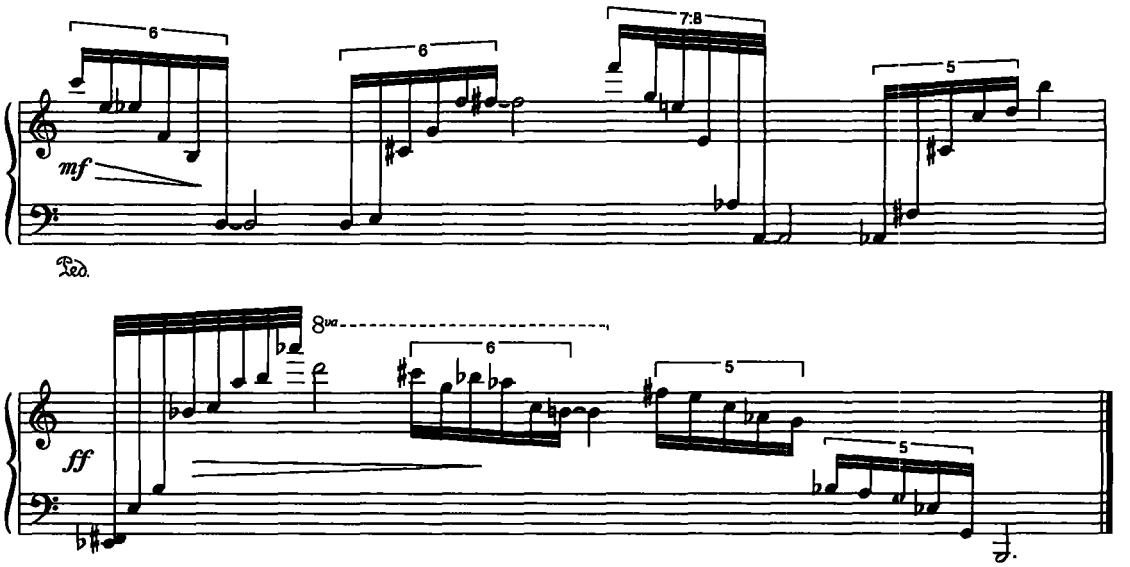
Material 3



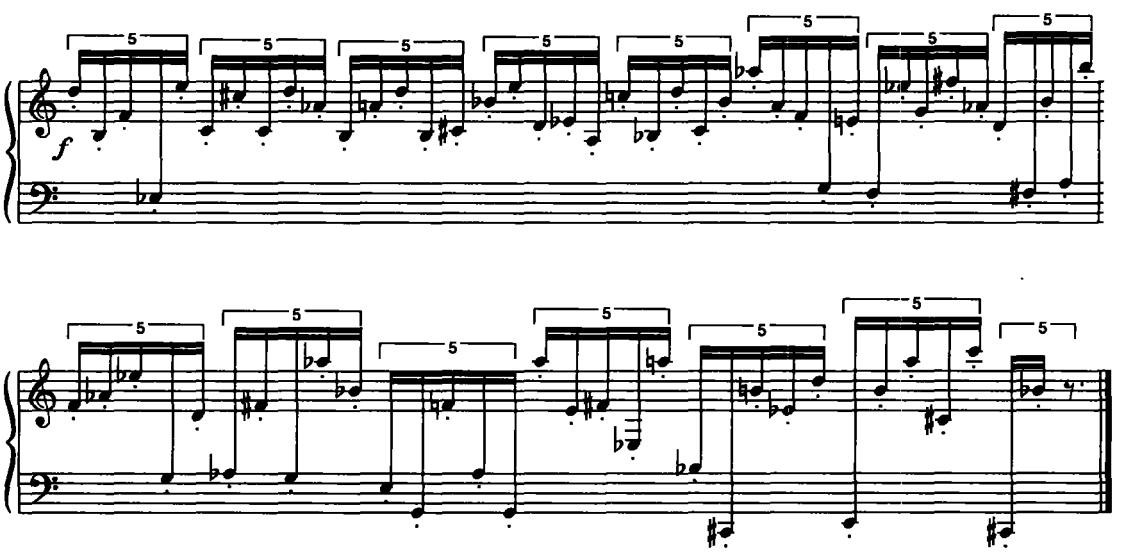
Material 4



Material 5



Material 6



Appendix - recordings on tape

Tape 1 Electroacoustic compositions (DAT)

ID 1: **In the Rainforest**

ID 2: **Colloquy-Discord**
Solo piano and tape.
Piano - the composer.

ID 3: **Colloquy-Discord**
Tape part only.

Tape 2 Performances (DAT)

ID 1: **Two Nocturnes**
Piano - the composer.

ID 2: **When a parasol is cooled...**
London Sinfonietta Soloists with Susan Bickley (workshop performance).
Durham University, February 1991.

ID 3: **Dances and Visions**
Durham University New Music Group. Conductor - the composer.
Durham University, November 1991.

ID 4: **String Quartet No.2 - Movement 1**
Kreutzer Quartet.
Bergano, Italy, February 1994.

ID 5: **She tells her love while half asleep**
Ensemble Alternance with Sharon Cooper. Conductor - Denis Cohen.
Huddersfield Contemporary Music Festival, November 1992.
(BBC Radio 3 Broadcast, December 1992).

ID 6: **Given Notes**
University College of North Wales Symphony Orchestra.
Conductor - the composer.
Bangor, February 1994.

Tape 3 Back-up (cassette)

Side A - contents as in Tape 1

Side B - contents as in Tape 2

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Erratum

Tape 3 Contents:

Side A - contents as in Tape 1
Two Nocturnes
When a parasol is cooled...

Side B - **Dances and Visions**
String Quartet No.2
She tells her love while half asleep
Given Notes

Instrumentation

flute/piccolo
clarinet in Bb/bass clarinet in Bb*
alto sax/soprano sax/clarinet in A*

trumpet in Bb	(straight, harmon and cup mutes)
trombone	(straight, harmon and cup mutes)
percussion 1:	xylophone, marimba, vibraphone, 3 crystal glasses (F#, Ab, Bb), hihat, small suspended cymbal, large suspended cymbal, conga, claves, snare drum, guiro
percussion 2:	marimba, vibraphone, tubular bells, tamtam, 4 woodblocks, small suspended cymbal, claves, conga, guiro

piano/harpsichord

violin
viola
violoncello
doublebass

all instruments are notated in C

* bass clarinet is shown on the lowest woodwind stave in Movements 3 and 4

Notation

s.p.	sul ponticello
s.t.	sul tasto
n.vib.	no vibrato

string ricochet

quarter-tone sharp/flat

flute multiphonic (traditional fingering for the diamond shaped note)

Contents

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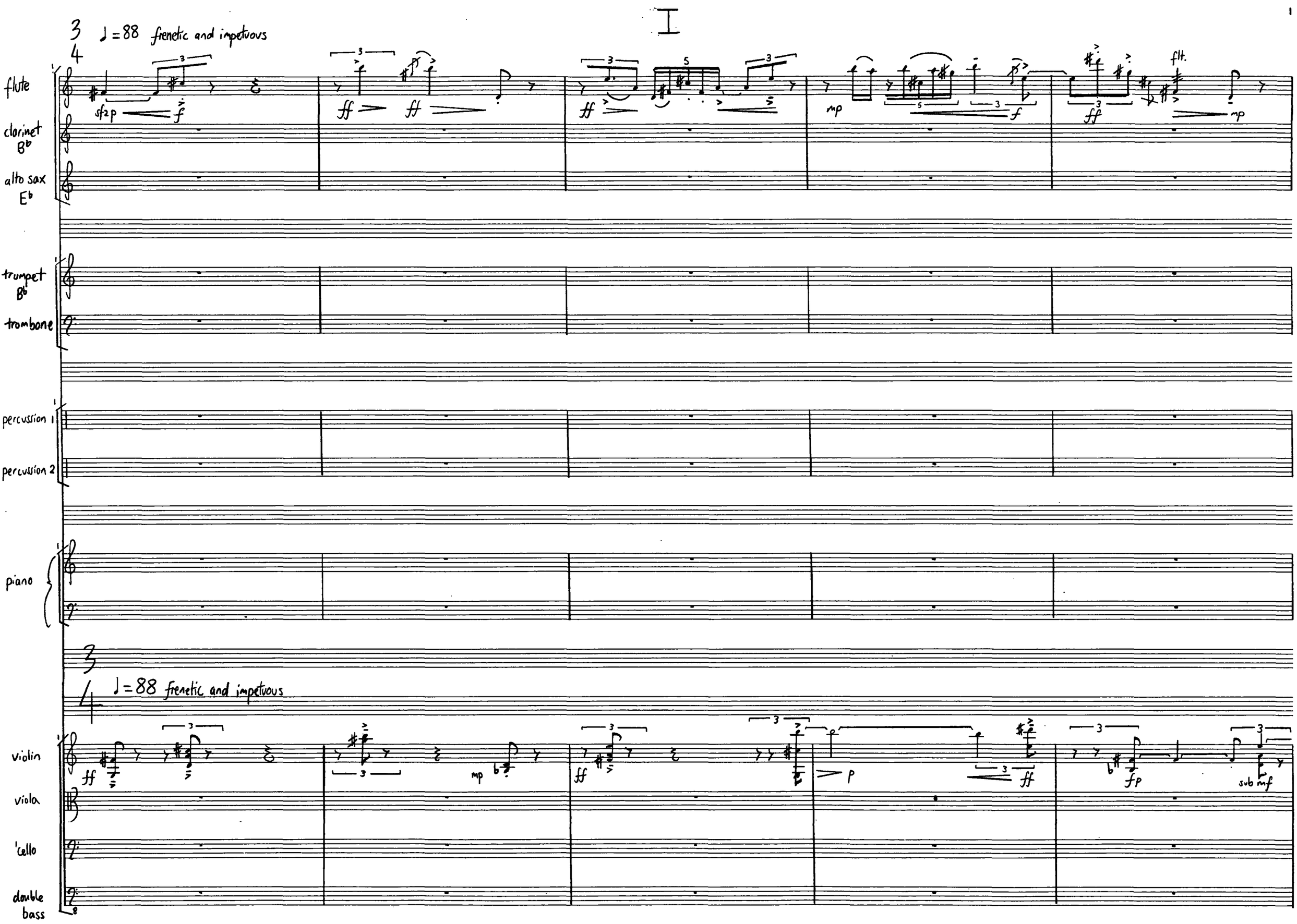
Movement 2: p.48

Movement 3: p.74

Movement 4: p.94



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6

flt.

clt.

vln.

vla.

11

flt.

clt.

vln.

vla.

16

flt.

clt.

vln.

vla.

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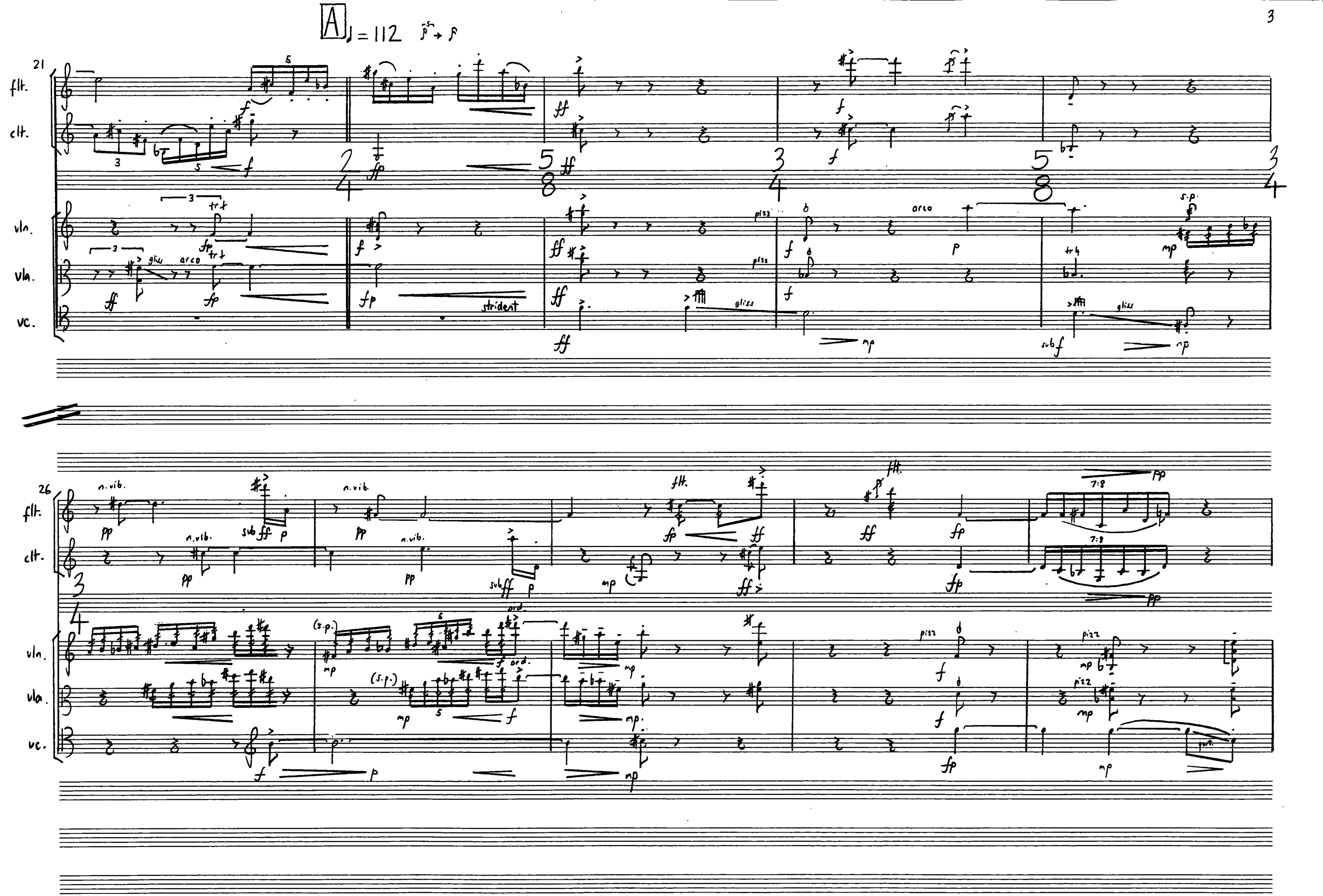

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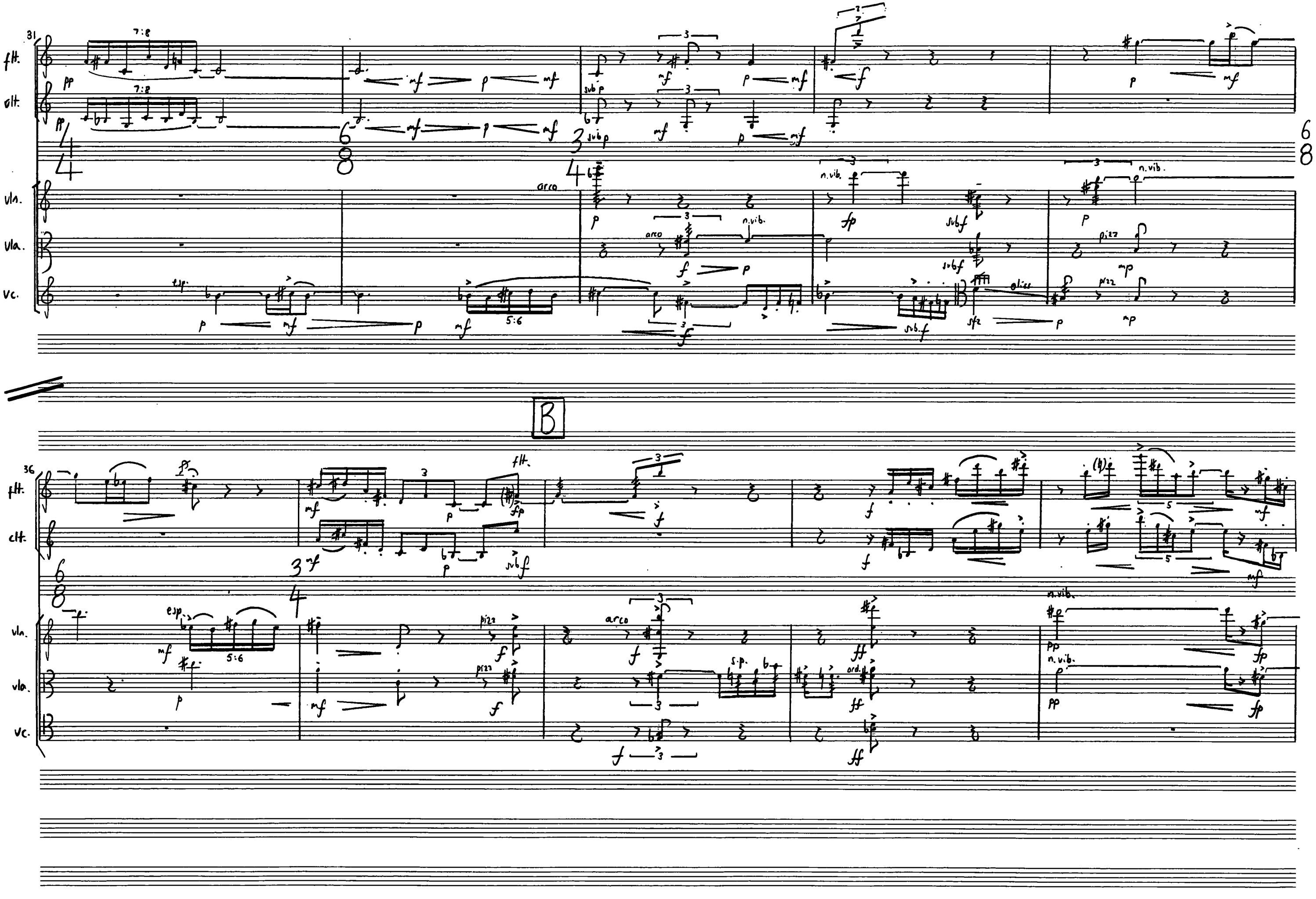

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41

flt.

clt.

a.sax.

tpt.

trb.

vln.

vln.

vl.

sord. (cup)

sord. (cup)

arco

pizz

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46

flt.

clt.

a. sax

tpt.

tbn.

vln.

vla.

vc.

5:6

esp.

PAN-A3 18 STAVE

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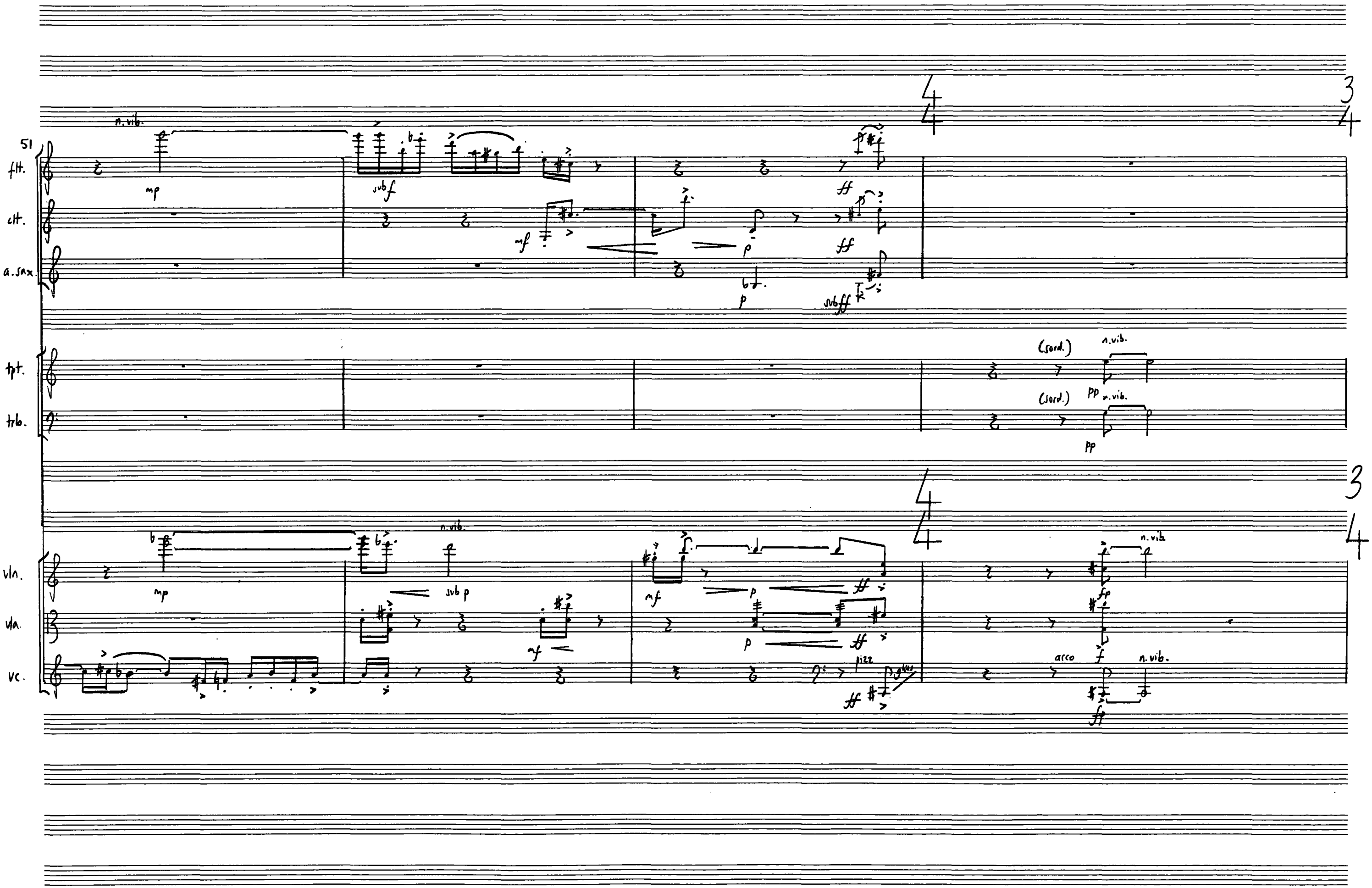

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55
flt.
clt.
a.sax.
55
tpt.
trb.
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pno.
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vln.
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vc.
cb.

C

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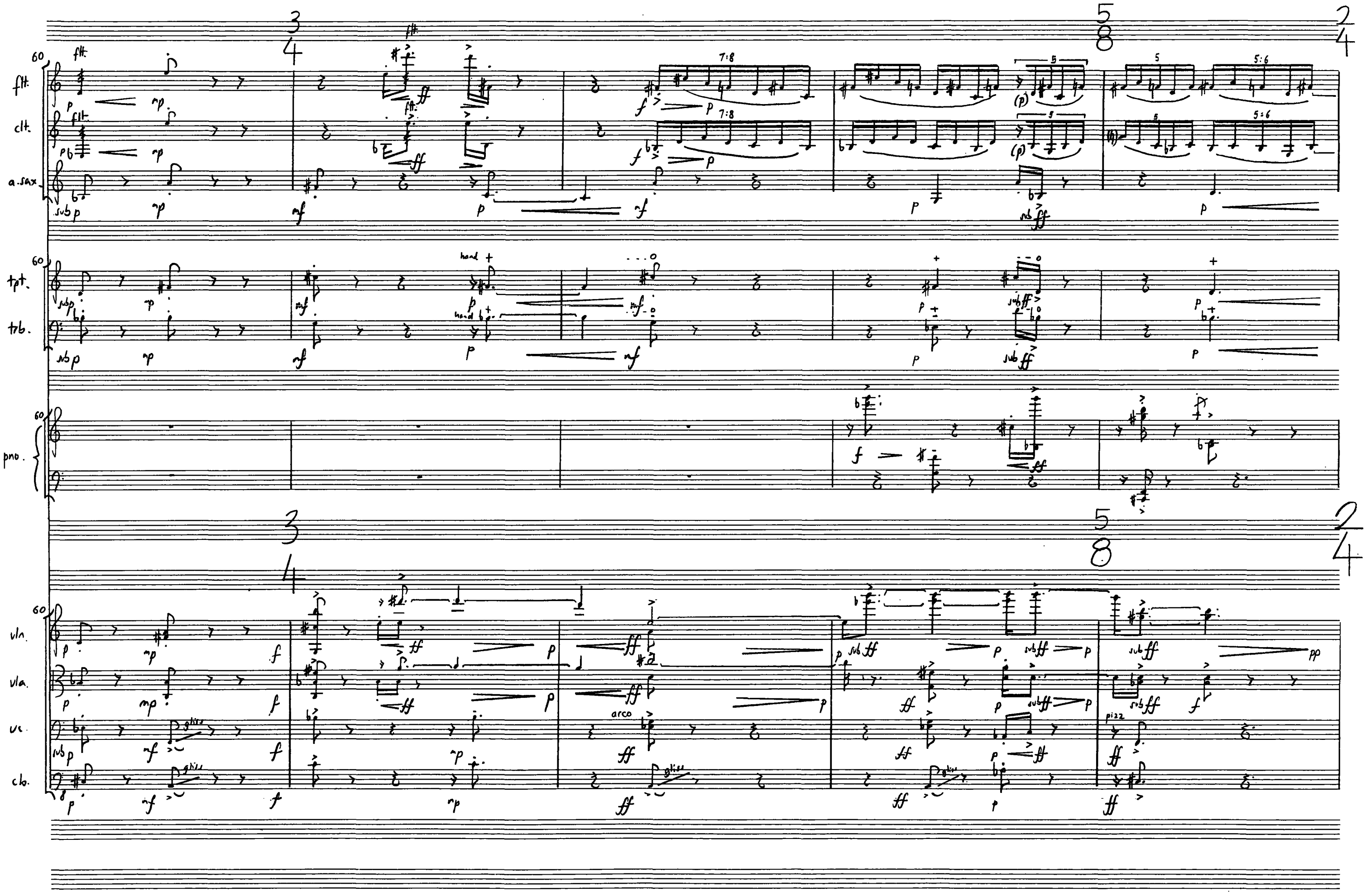

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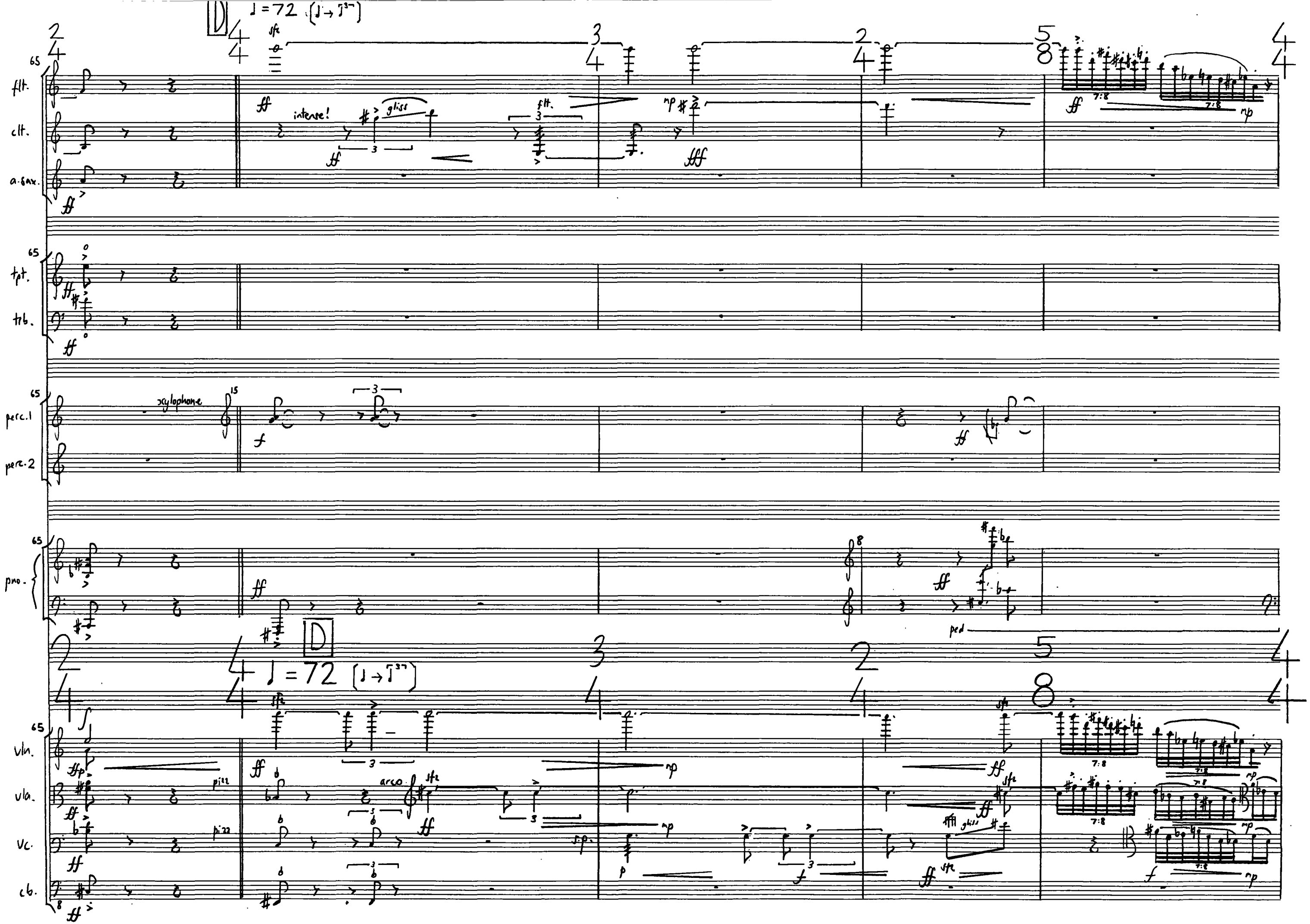

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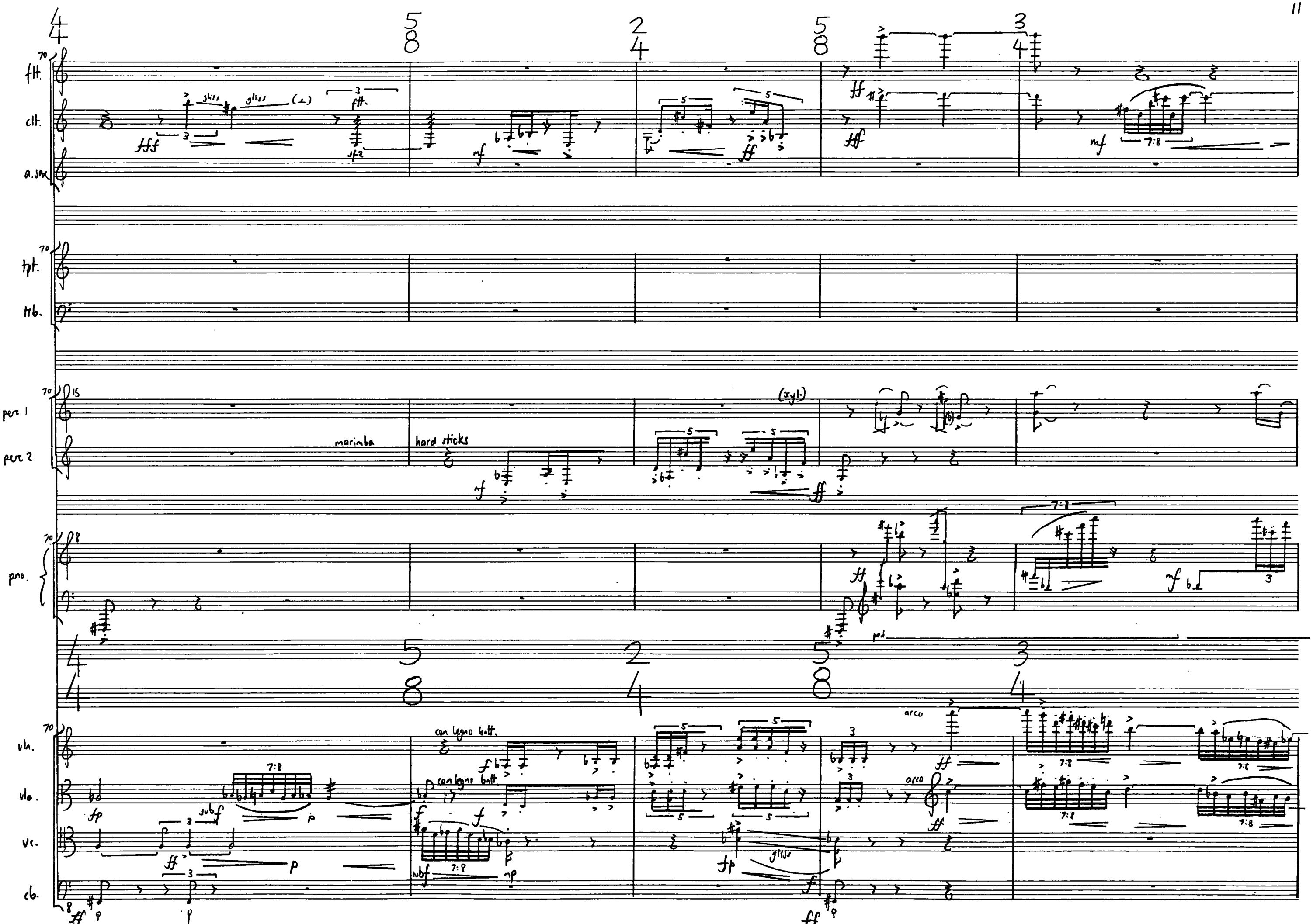

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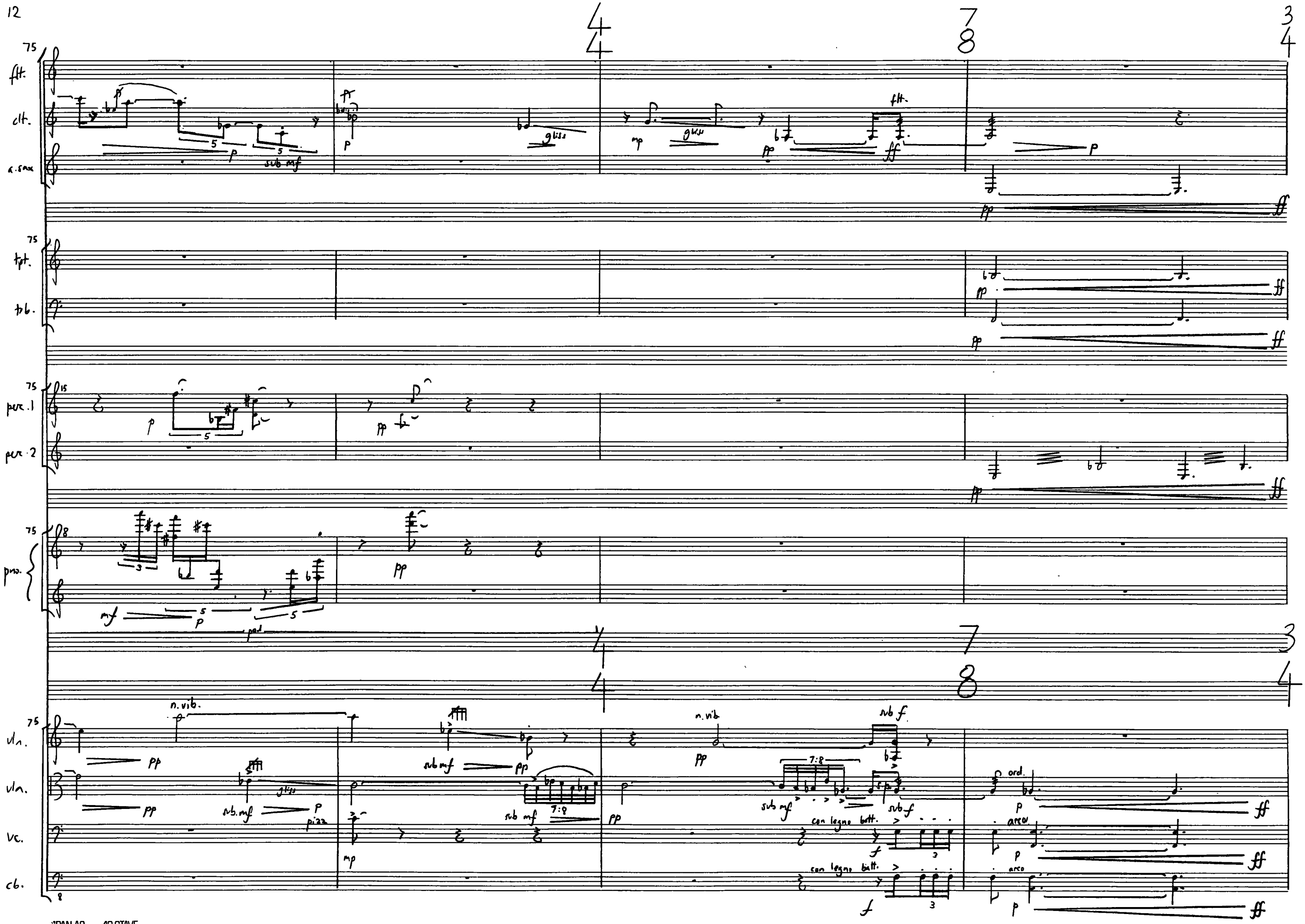

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E

79

flt.

clt.

a.sax

n.vib.

79

tpt.

trb.

115

perc 1

perc 2

pno.

E

vln.

vla.

vc

cb.

PAN-A3 18 STAVE

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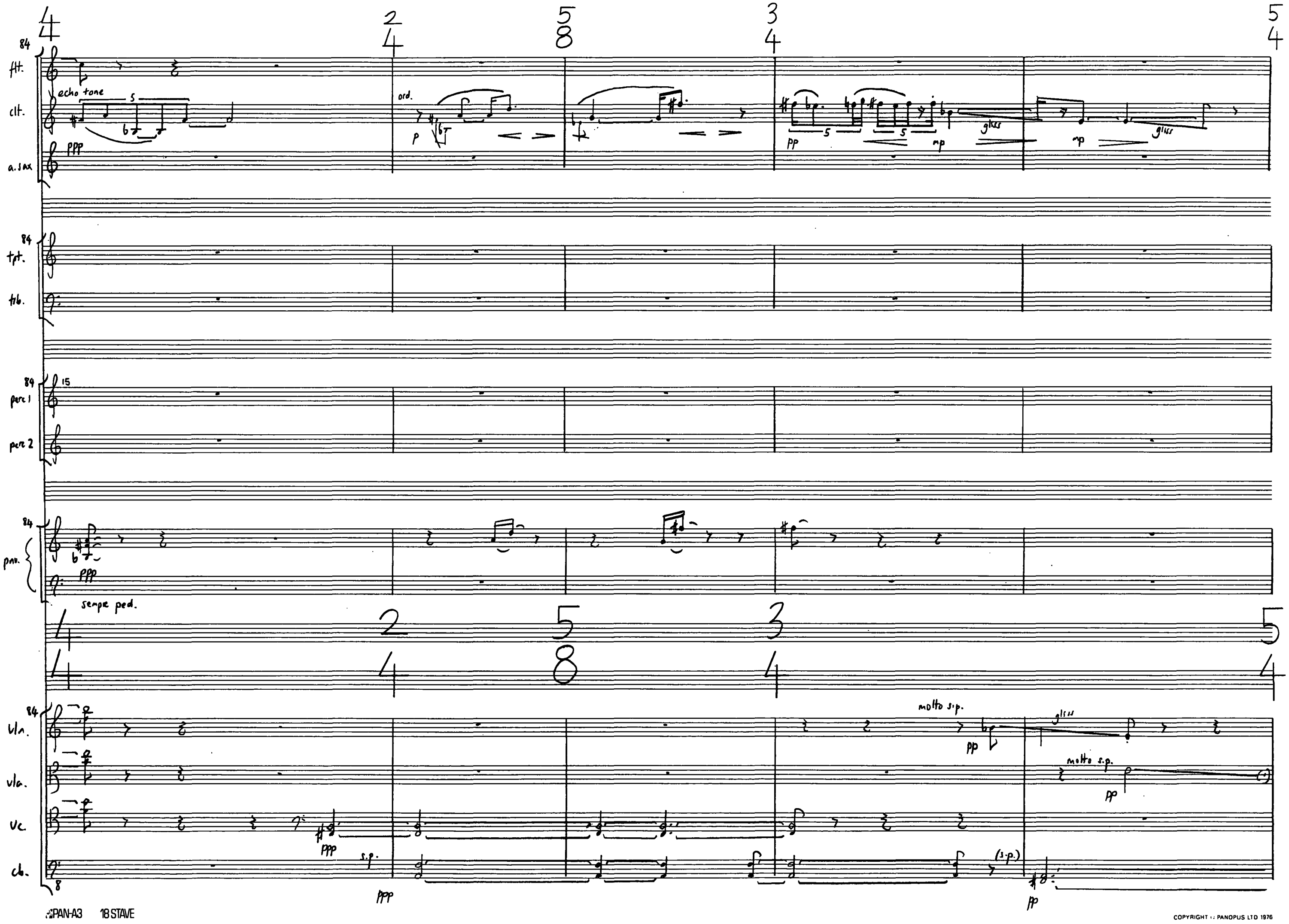

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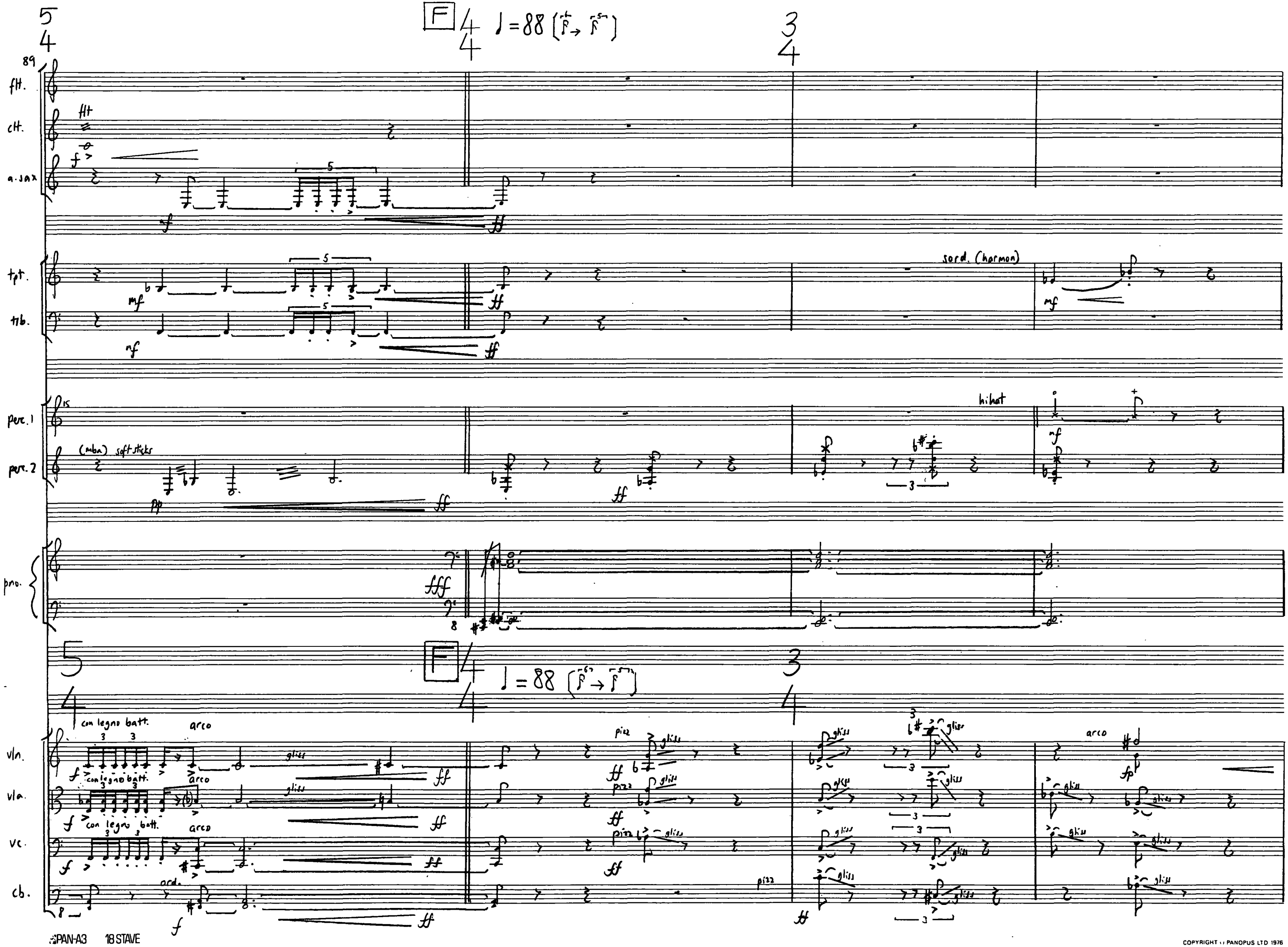

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93

flt.

clt.

a.sax.

93

tpt.

tbn.

93

perc. 1

perc. 2

93

pno

93

vln.

vla.

vc.

cb.

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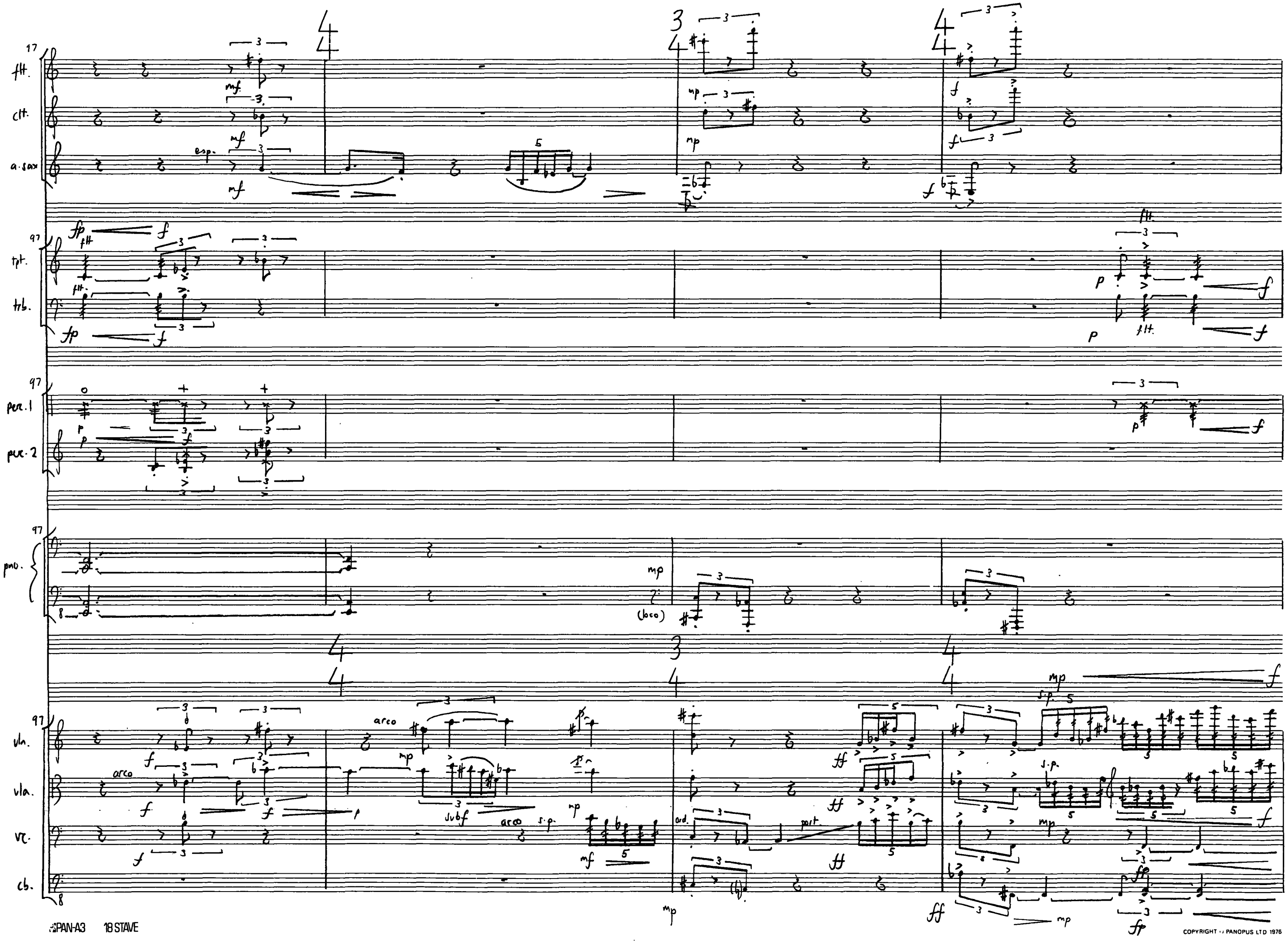

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flt.

clt.

a.sax

tpt.

trb.

perc. 1

perc 2

pno.

vln

vla.

vc.

cb.

sord. (straight)

sord. (straight)

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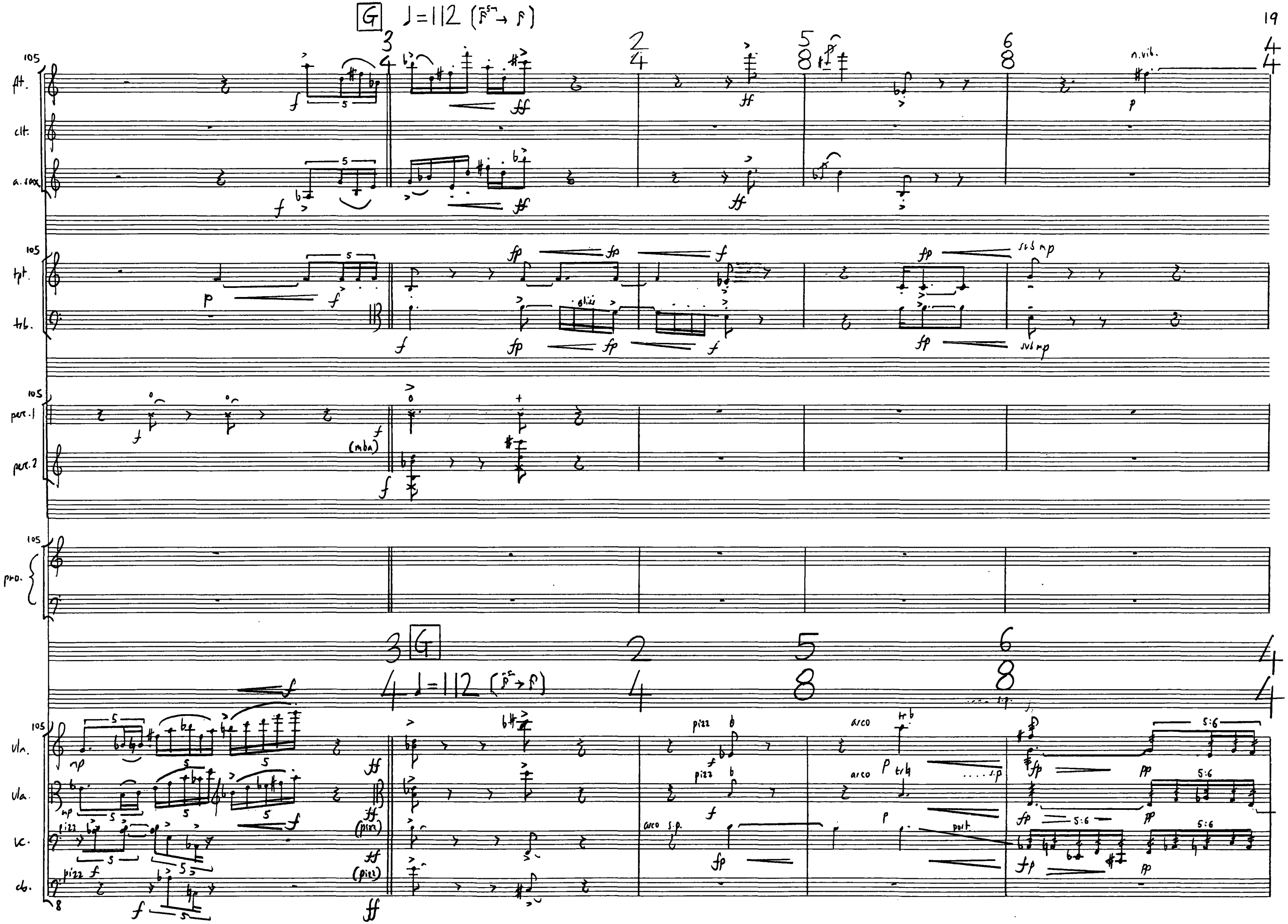

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110

flt.

clt.

a.sax.

n.vib.

sub ff > p

p

n.vib.

sub ff > p

n.vib.

p

n.vib.

p

sub ff > p

sub ff > p

110

tpt.

hb.

(sord. - straight)

f

(sord. - straight)

mf

mf

110

perc. 1

perc. 2

f

110

pno.

f

110

vln.

vla.

vc.

cb.

pp cresc poco a poco

pp cresc poco a poco

pp cresc poco a poco

mf

pizz

mf

pp

5:6

mf

pp

5:6

mf

pp

5:6

f

PAN-A3 18 STAVE

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115
fl.
cl.
a.sax.

115
tpt.
trb.

115
perc 1
perc. 2

115
pno.

115
vln
vla.
vc.
cb.

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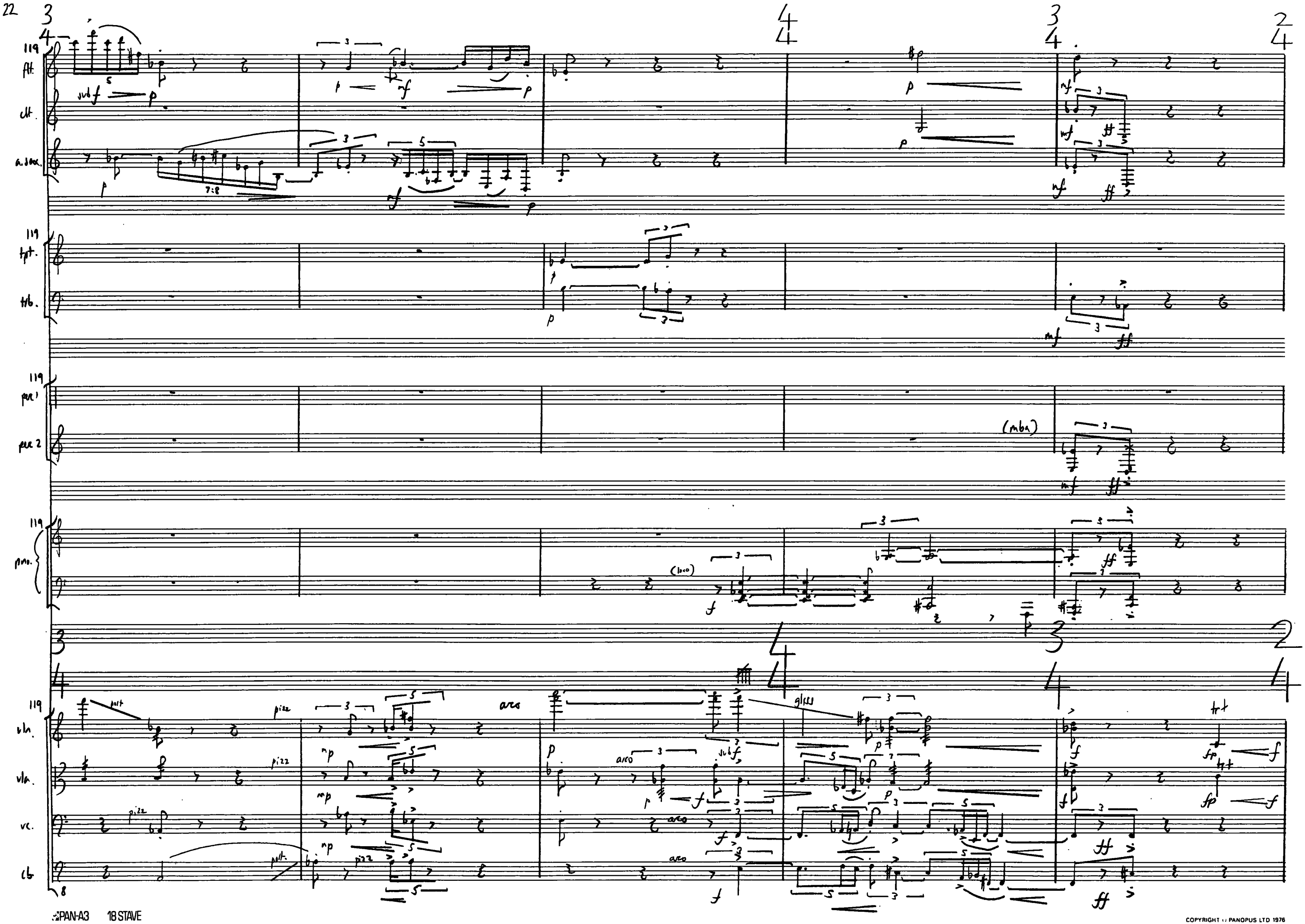

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H

124

flt.

clt.

a.sax.

tpt.

trb.

per.1

per.2

pno.

vln.

vla.

vc.

cb.

PAN-A3 18 STAVE

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fl.
cl.
a.sax.
tpt.
hb.
per. 1
per. 2
pno
vln.
vla.
vc
cb.

(hi-hat)

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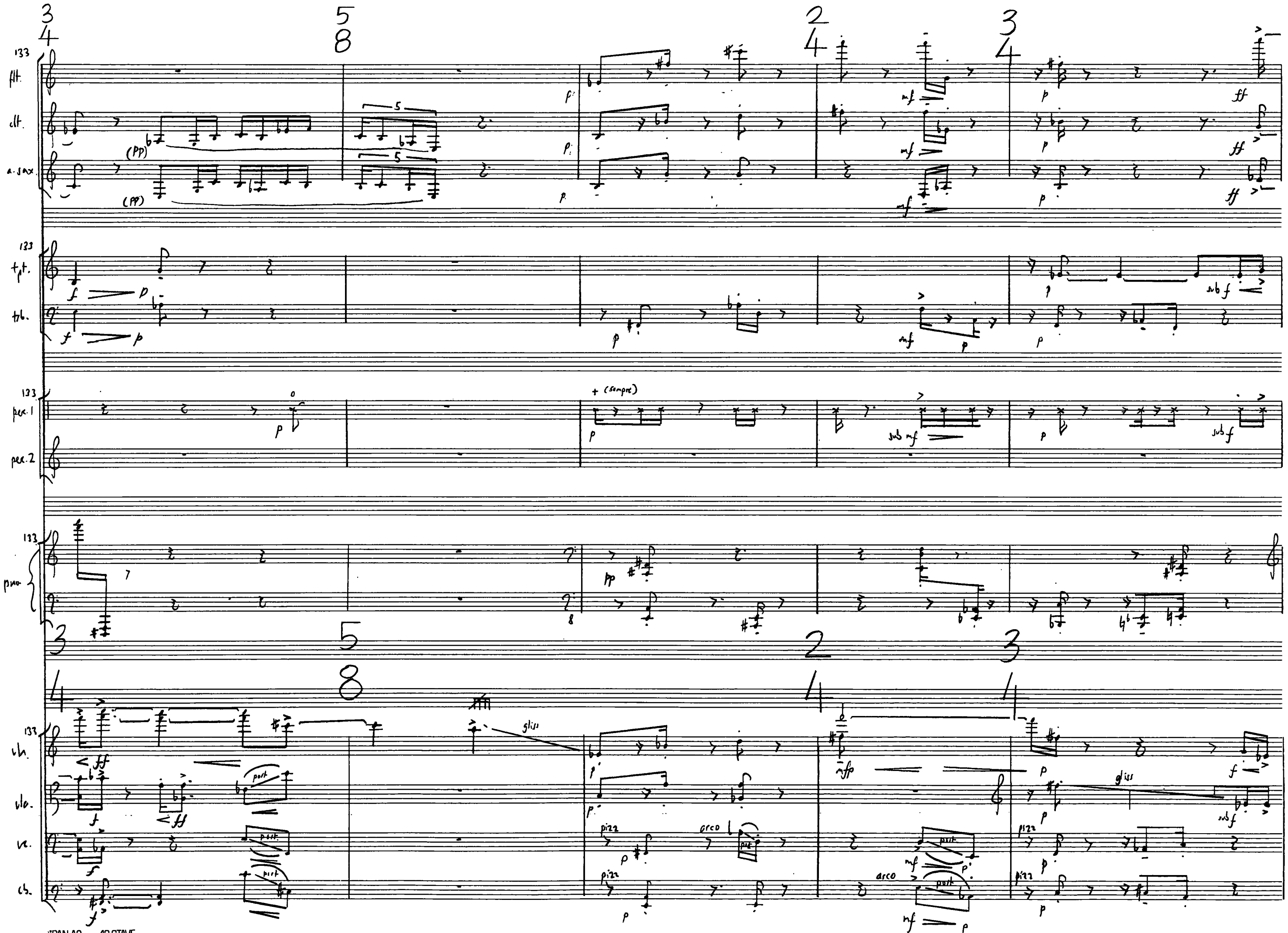

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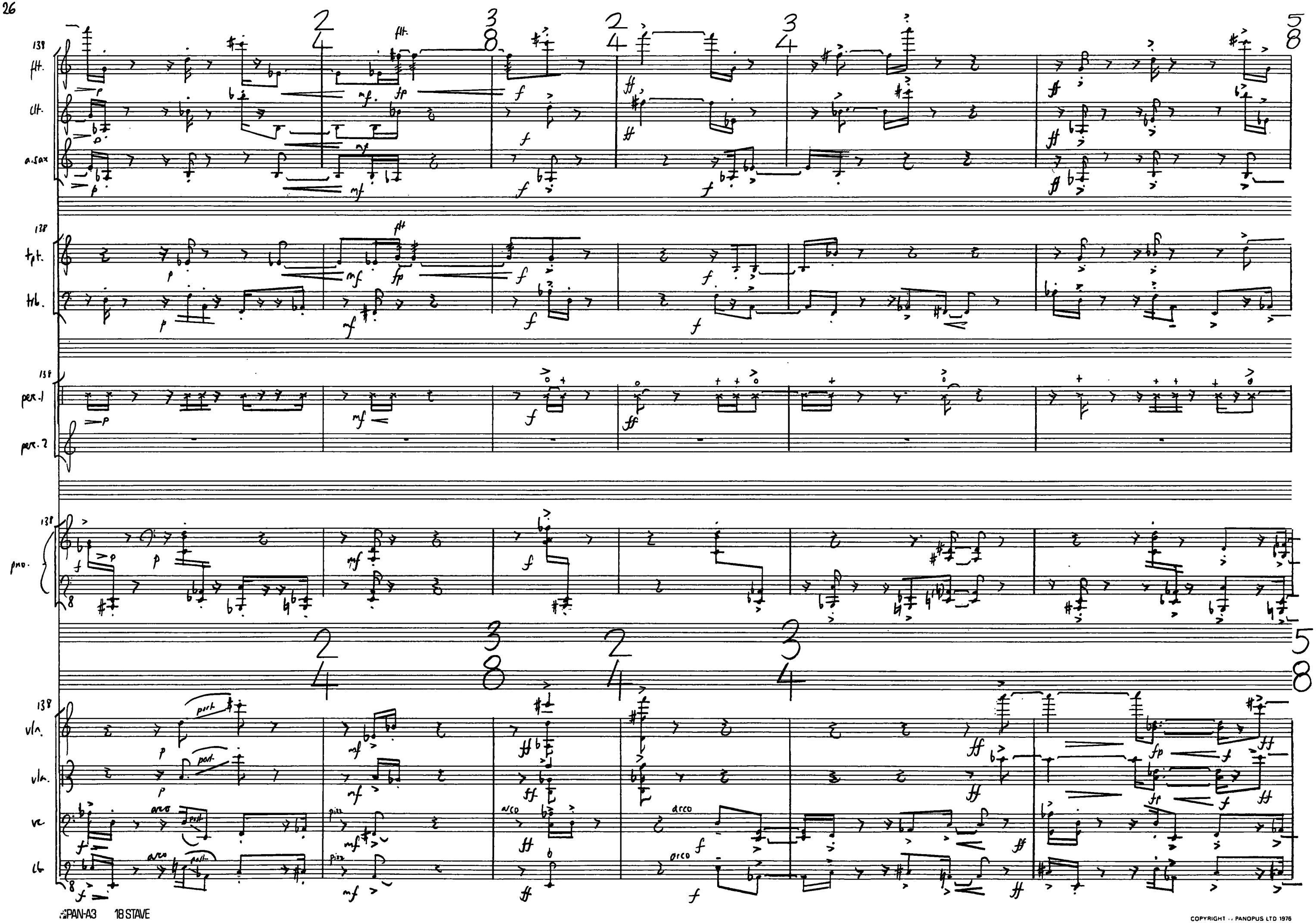

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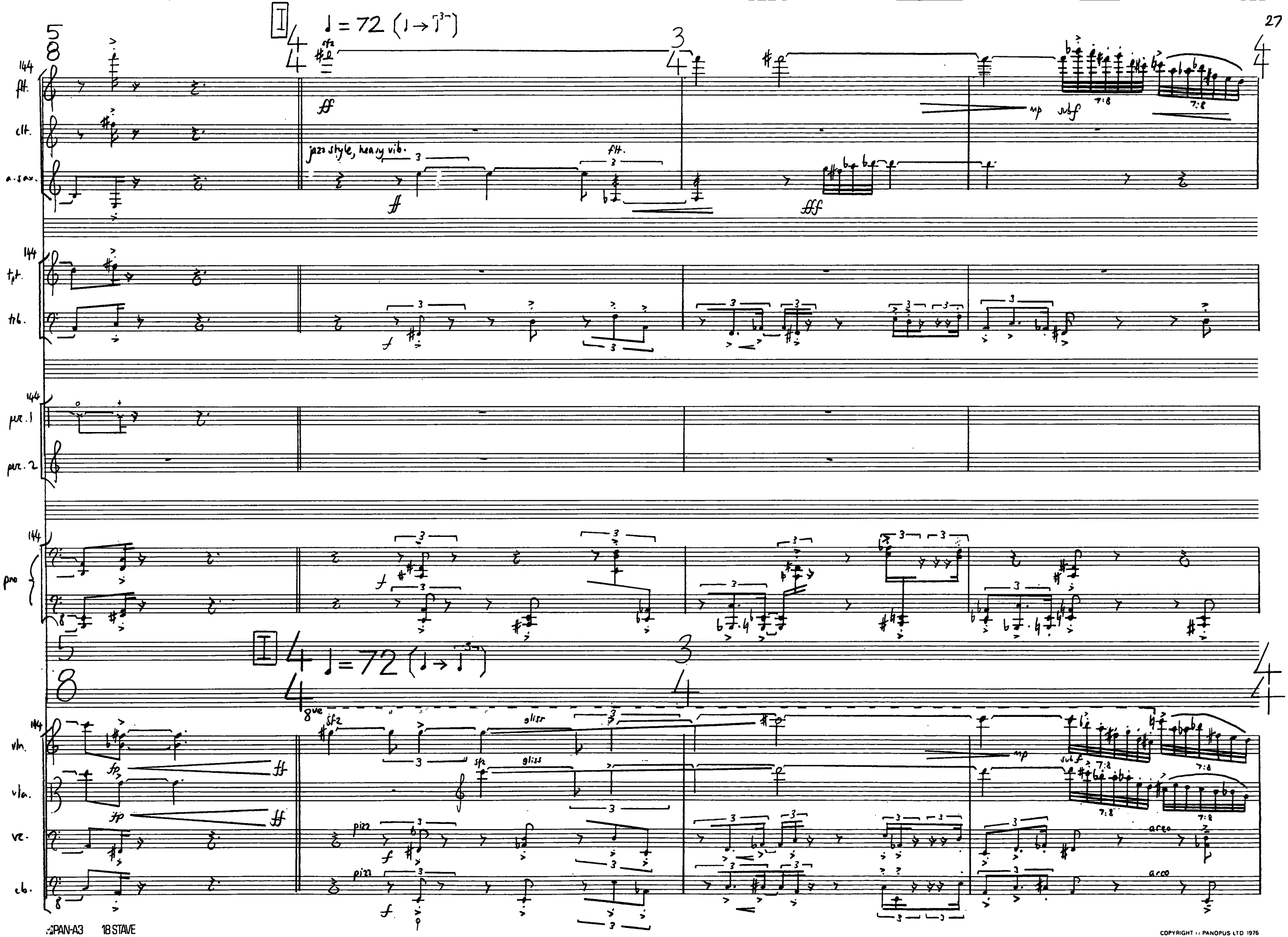

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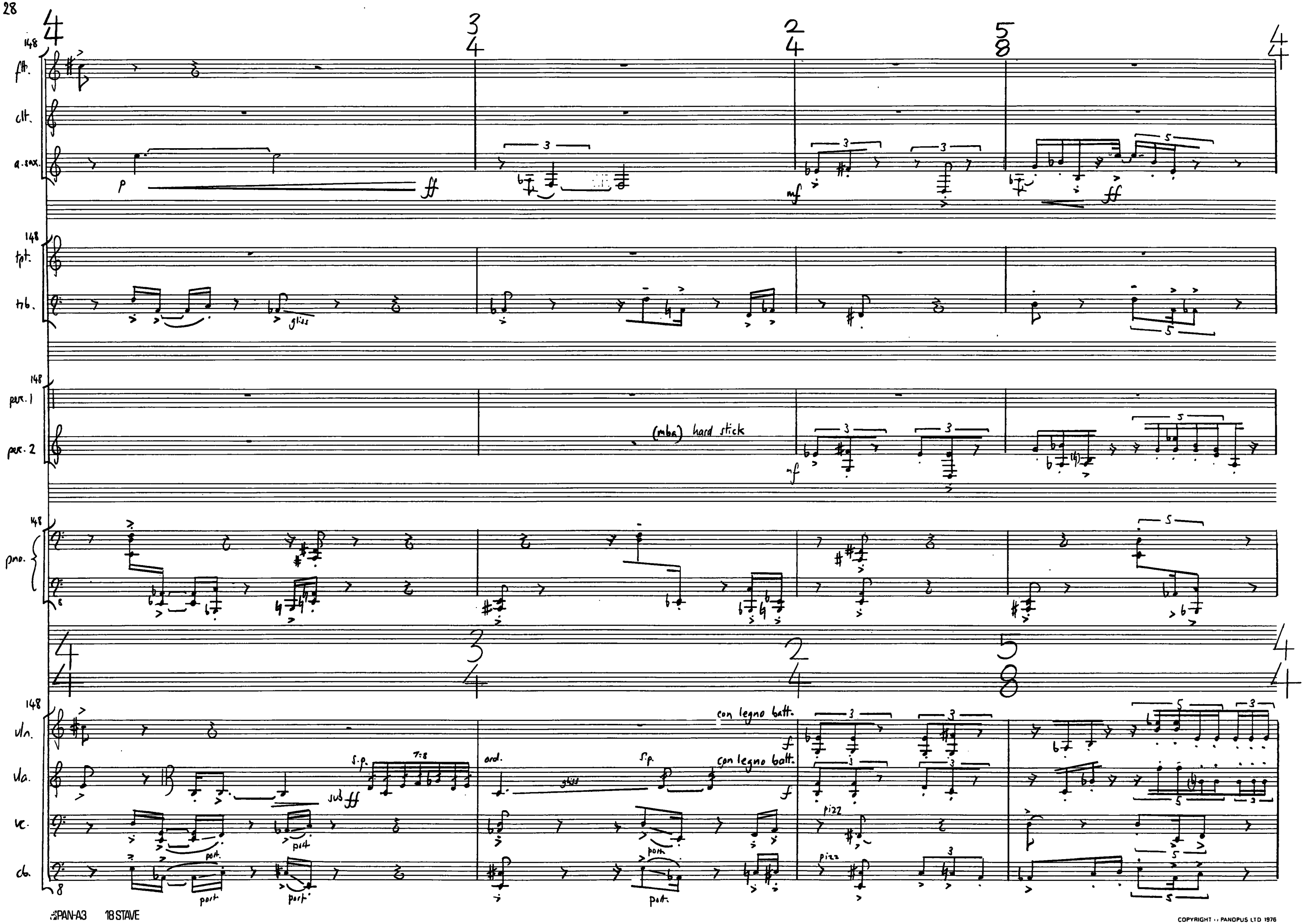

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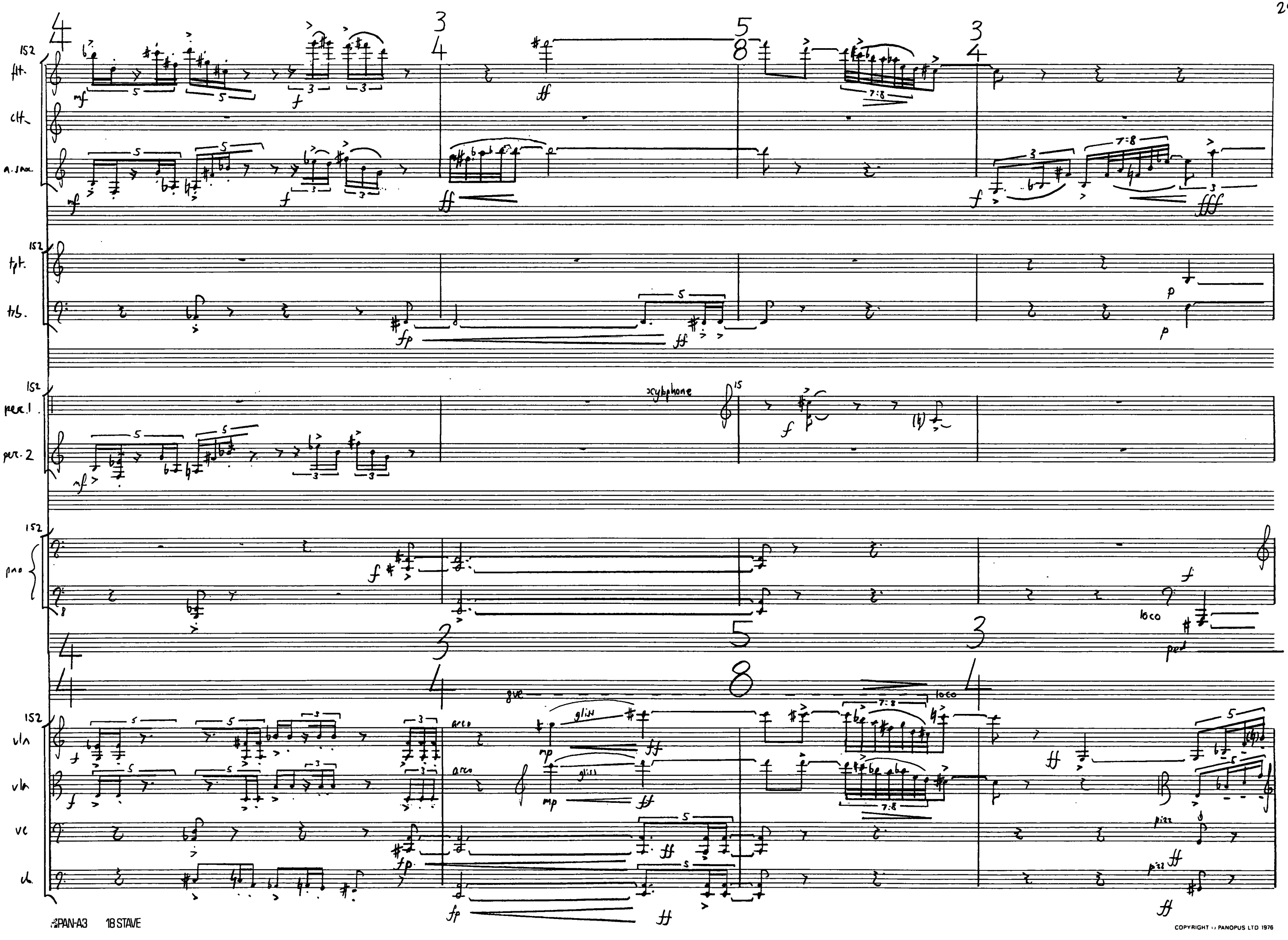

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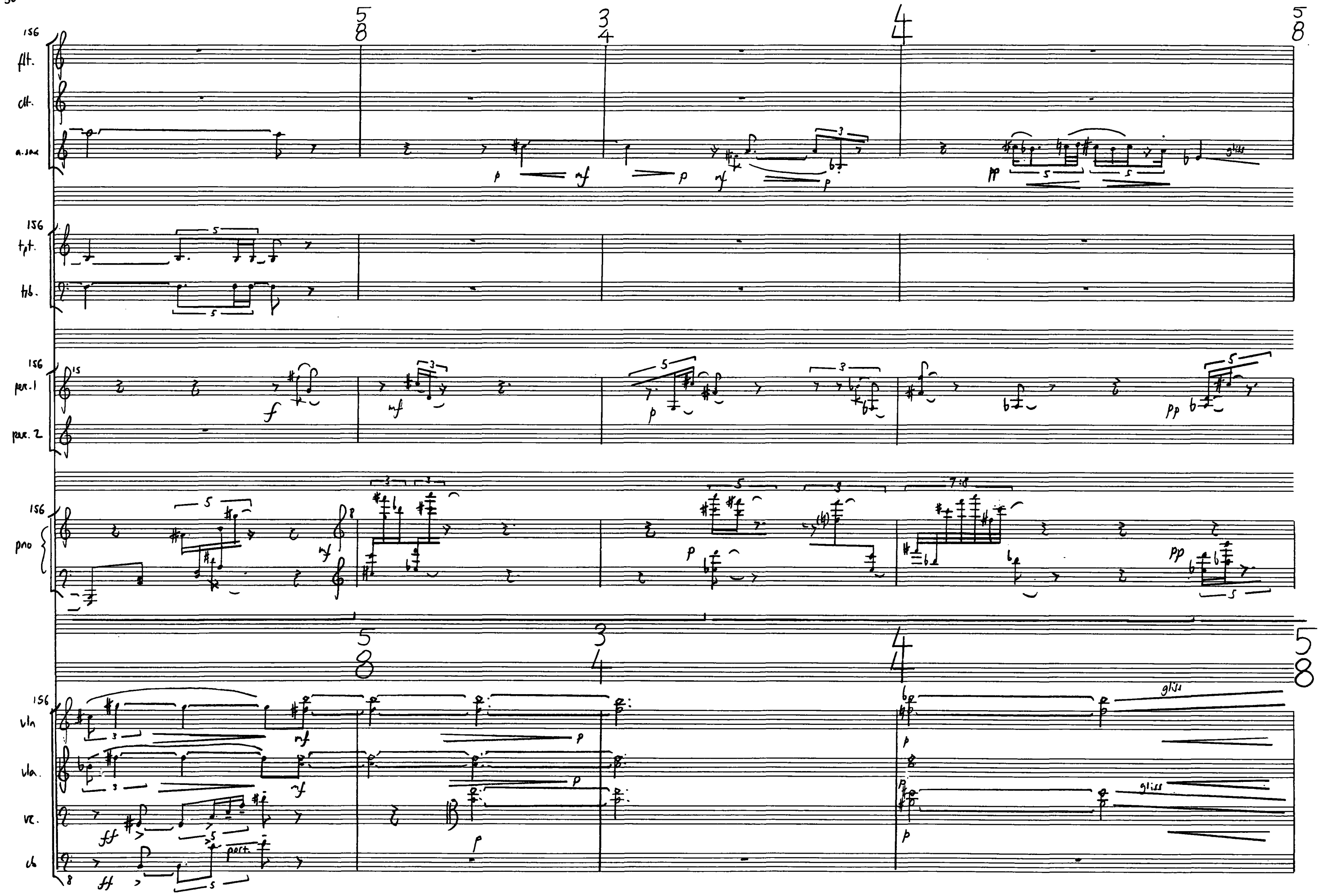

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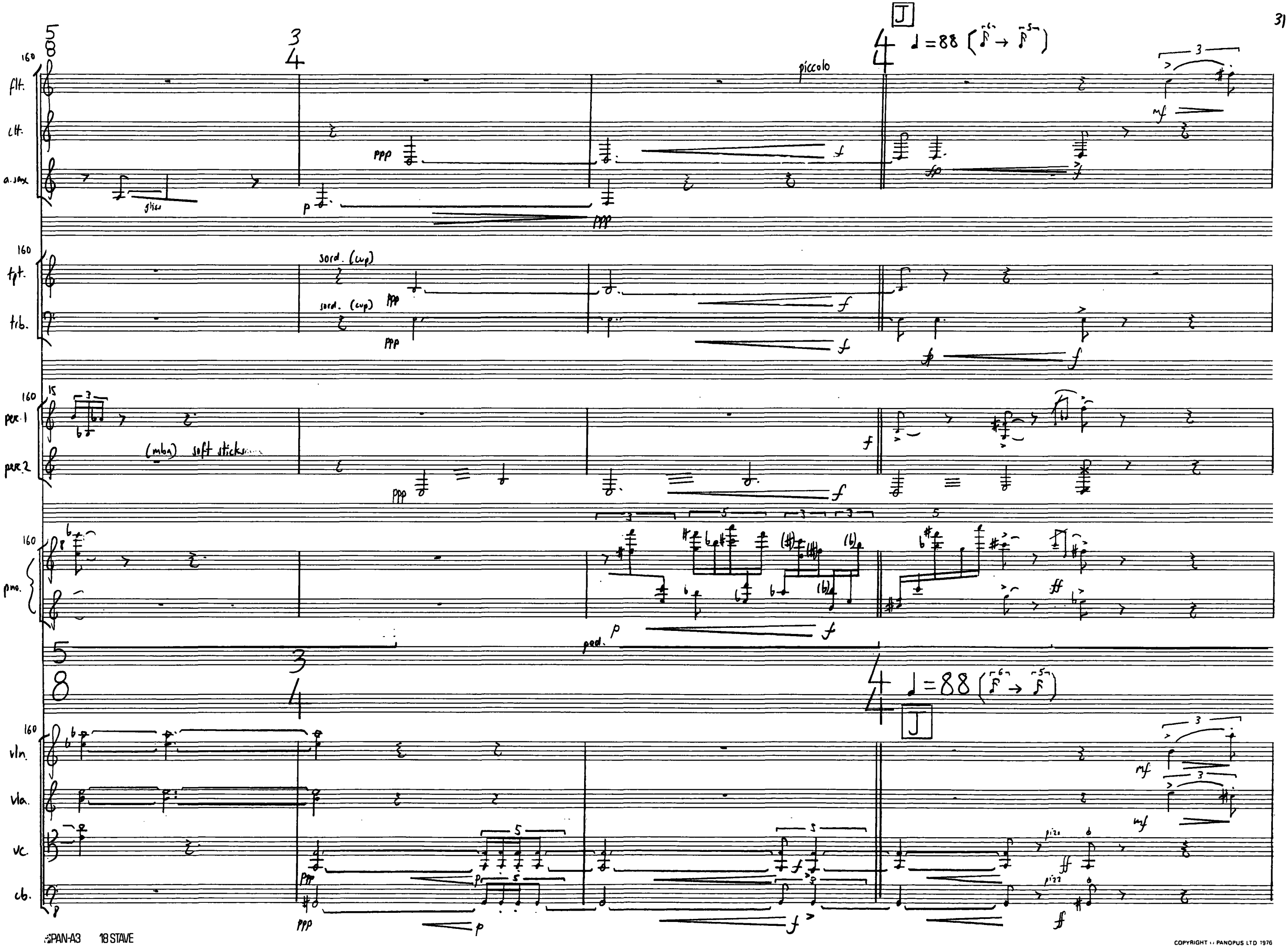

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piec.
clt.
a.sax
tpt.
trb.
per.1
per.2
pno.
vln.
vla.
vc.
cb.

PAN-A3 18 STAVE

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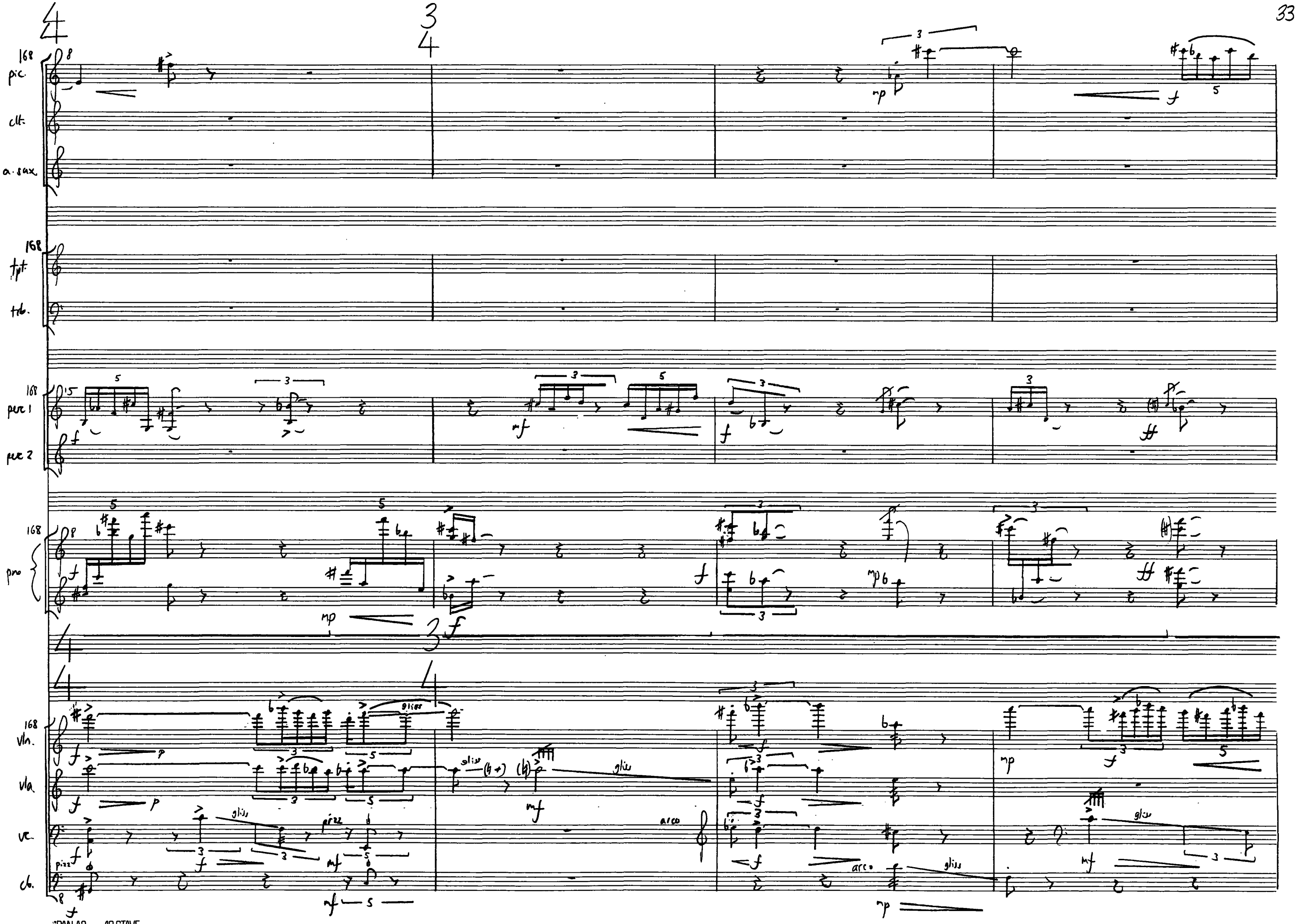

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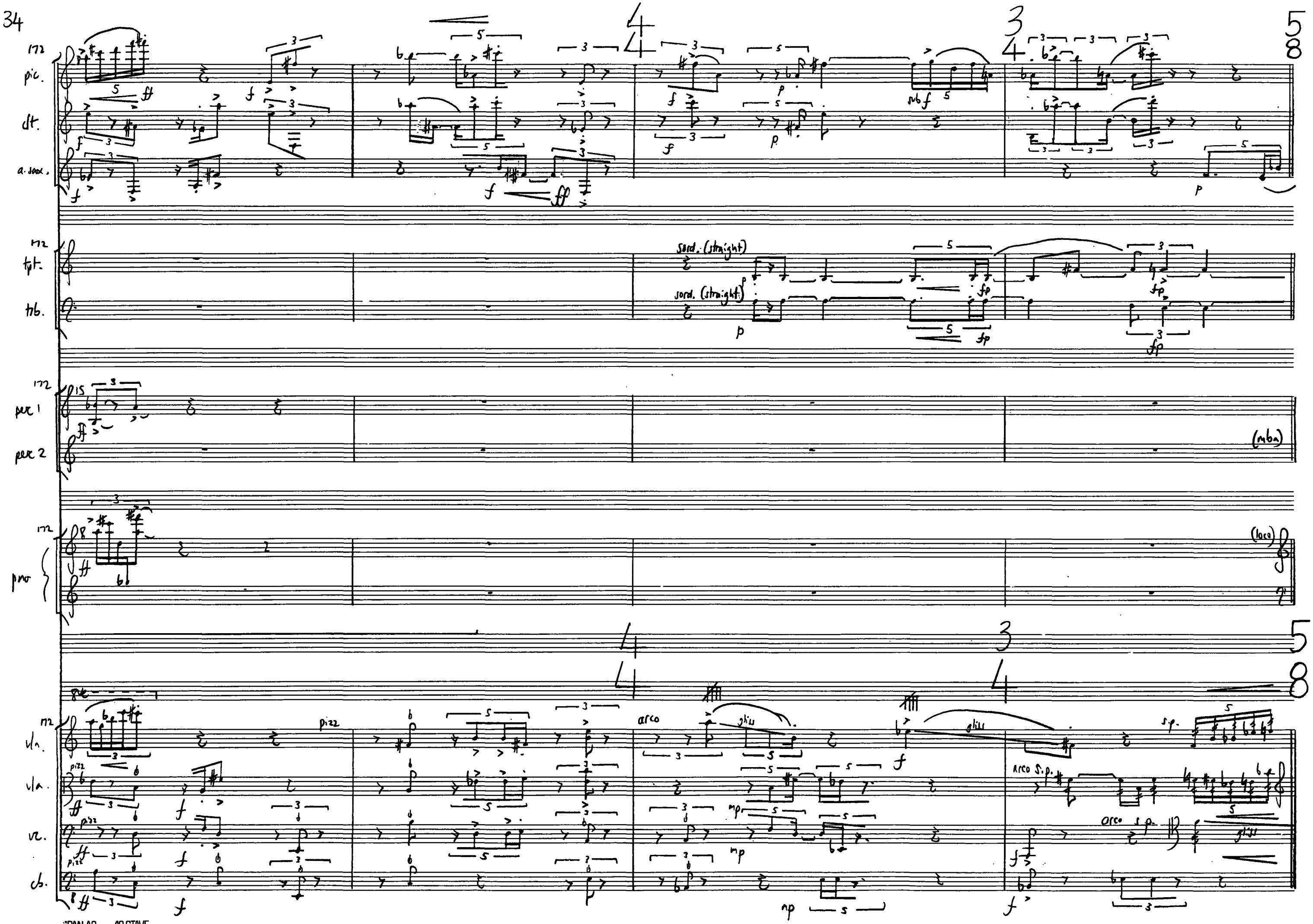

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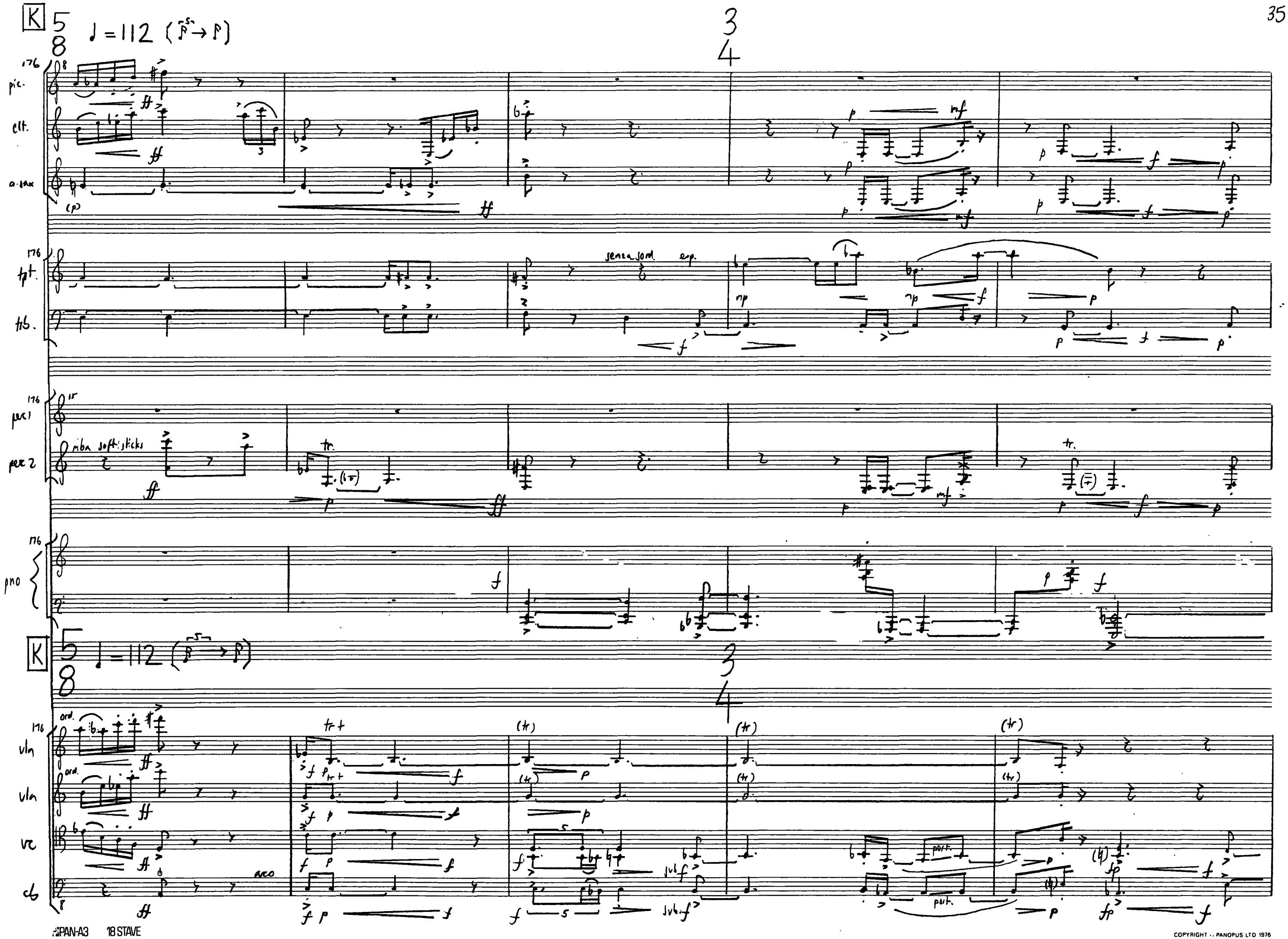

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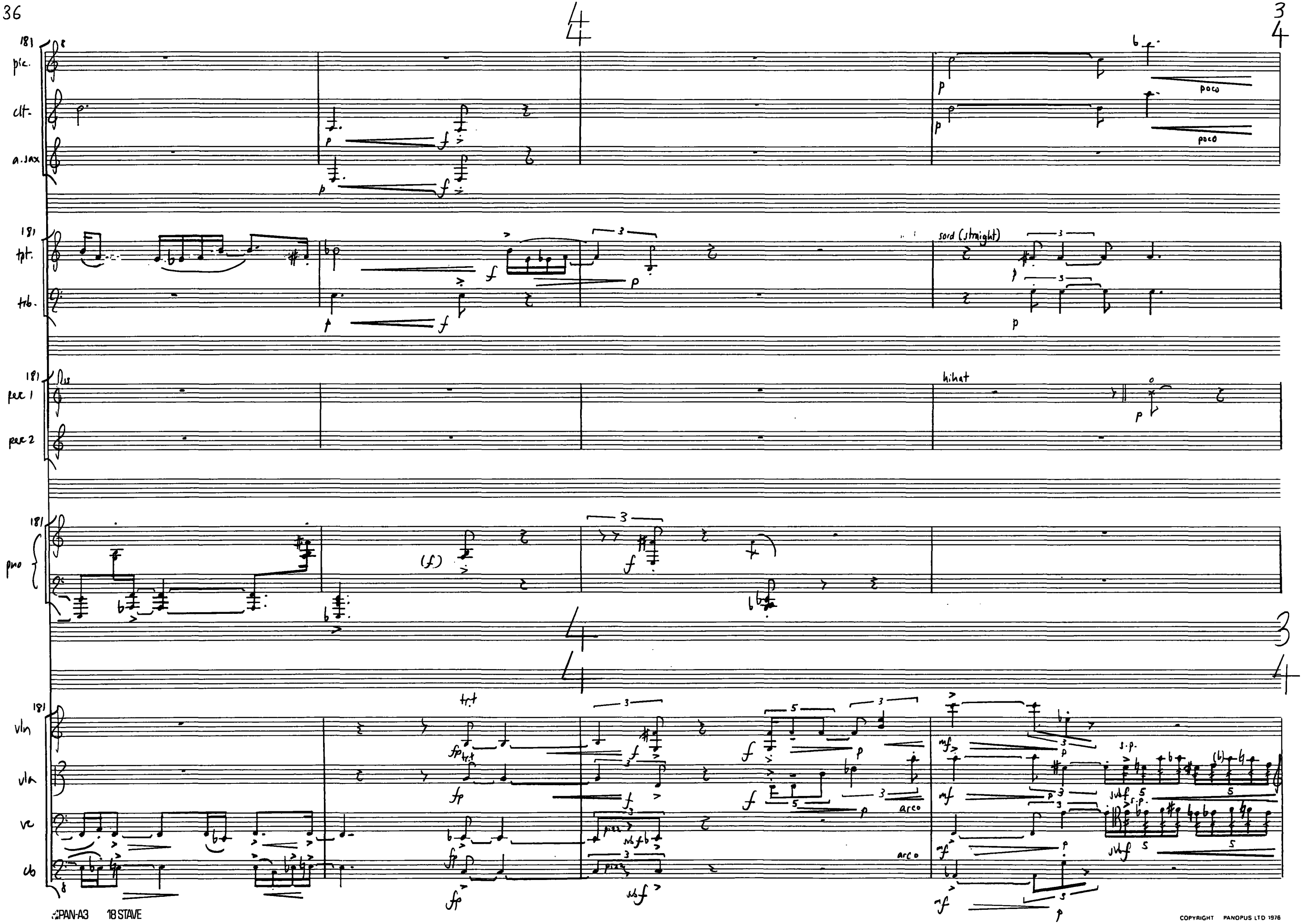

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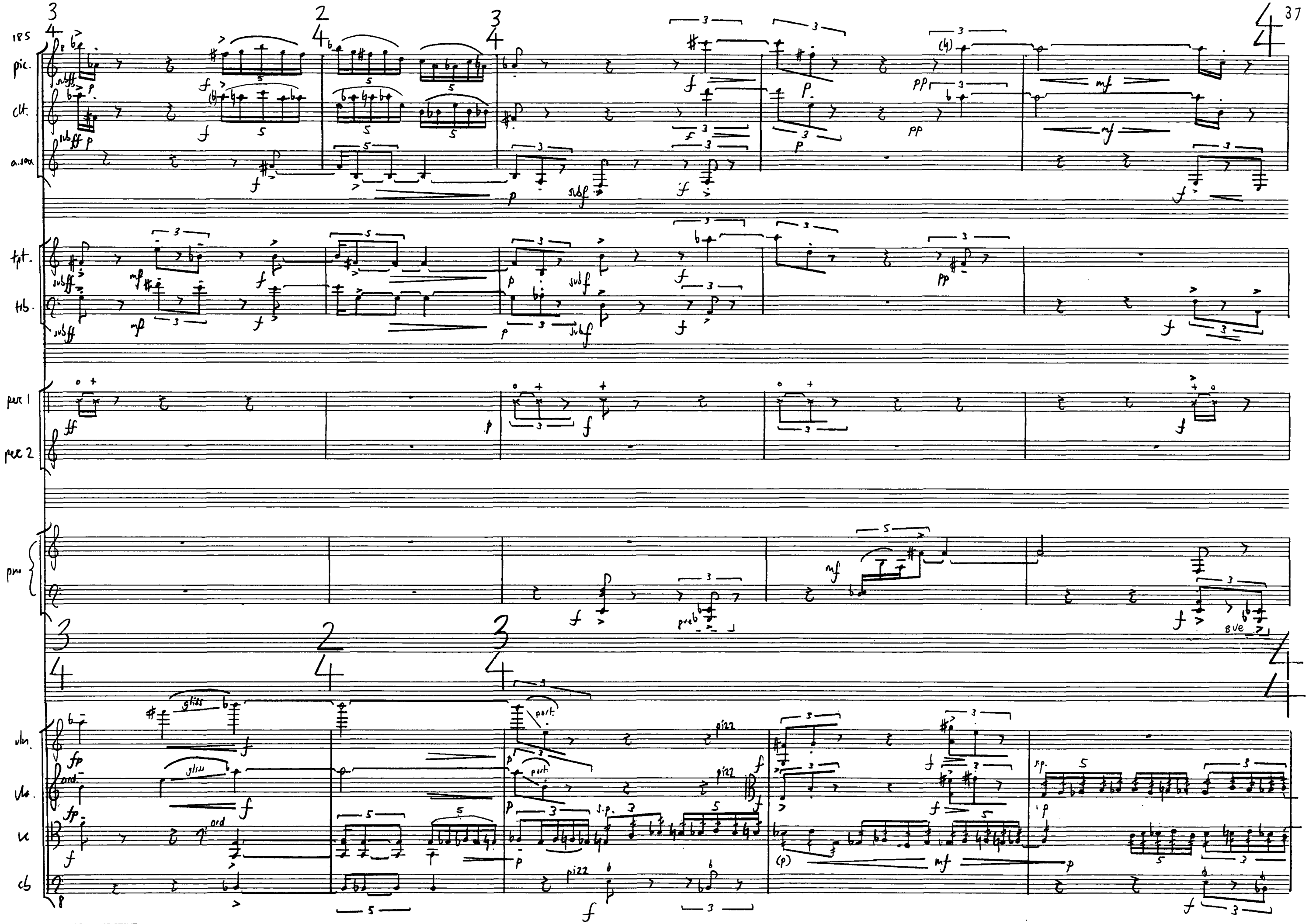

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190

pic

cl.

b.sax

tpt.

Hb.

perc 1

perc 2

pno.

vln.

Vla

Vc

cb

Senza sord.

Senza sord.

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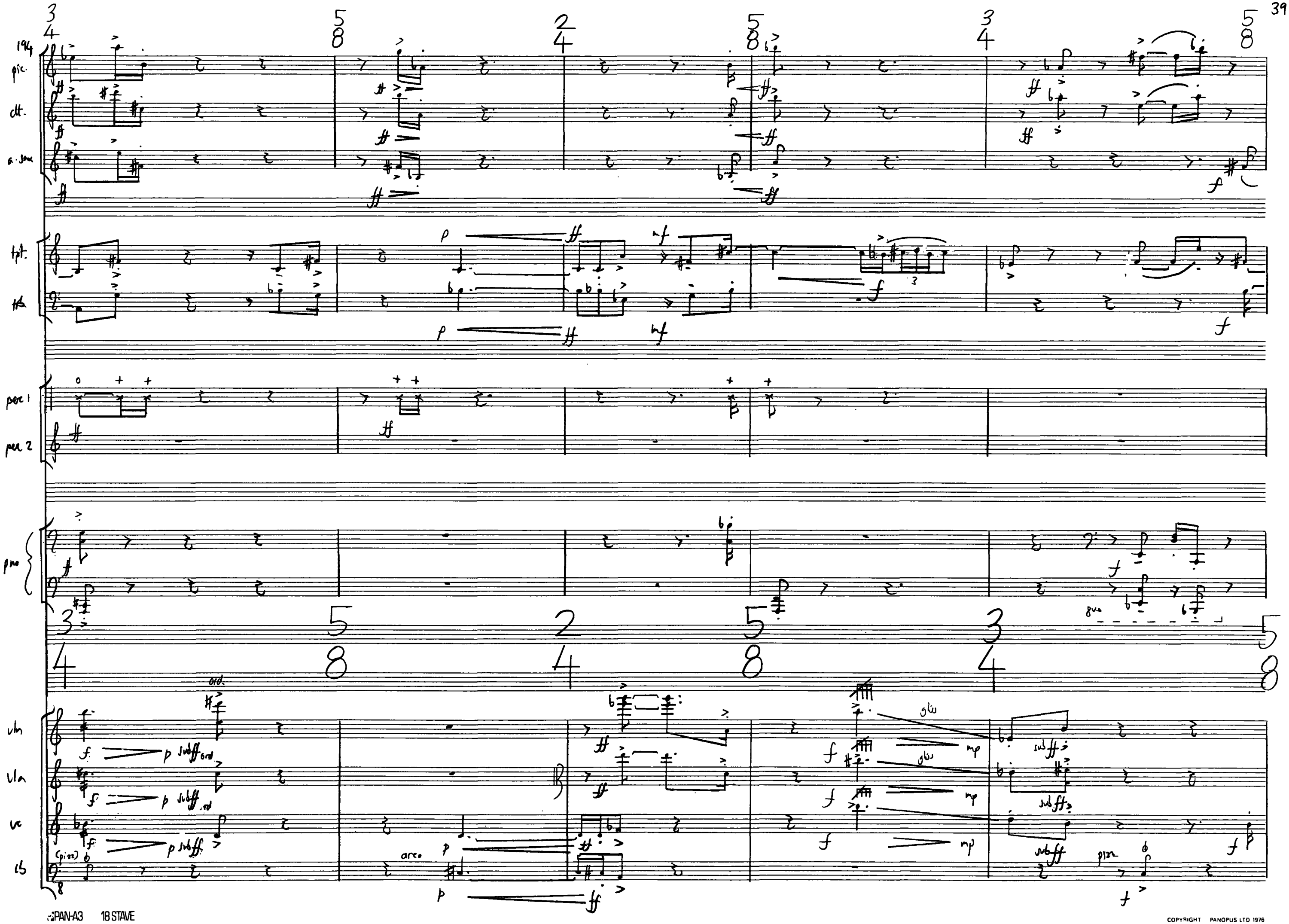

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40

199 pic. clt. a.sax

199 tpt. trb.

199 perc 1 perc 2

(tuba) hard stick

sord (straight)

sord (straight)

K9 pno.

199 vln. vla. vc. cb.

arco

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204
pic.
clt.
a.sax
204
tpt.
tbn.
204
perc 1
perc 2
large suspended cymbal
204
pno.
204
vln.
vla.
vc.
cb.
pizz
arco

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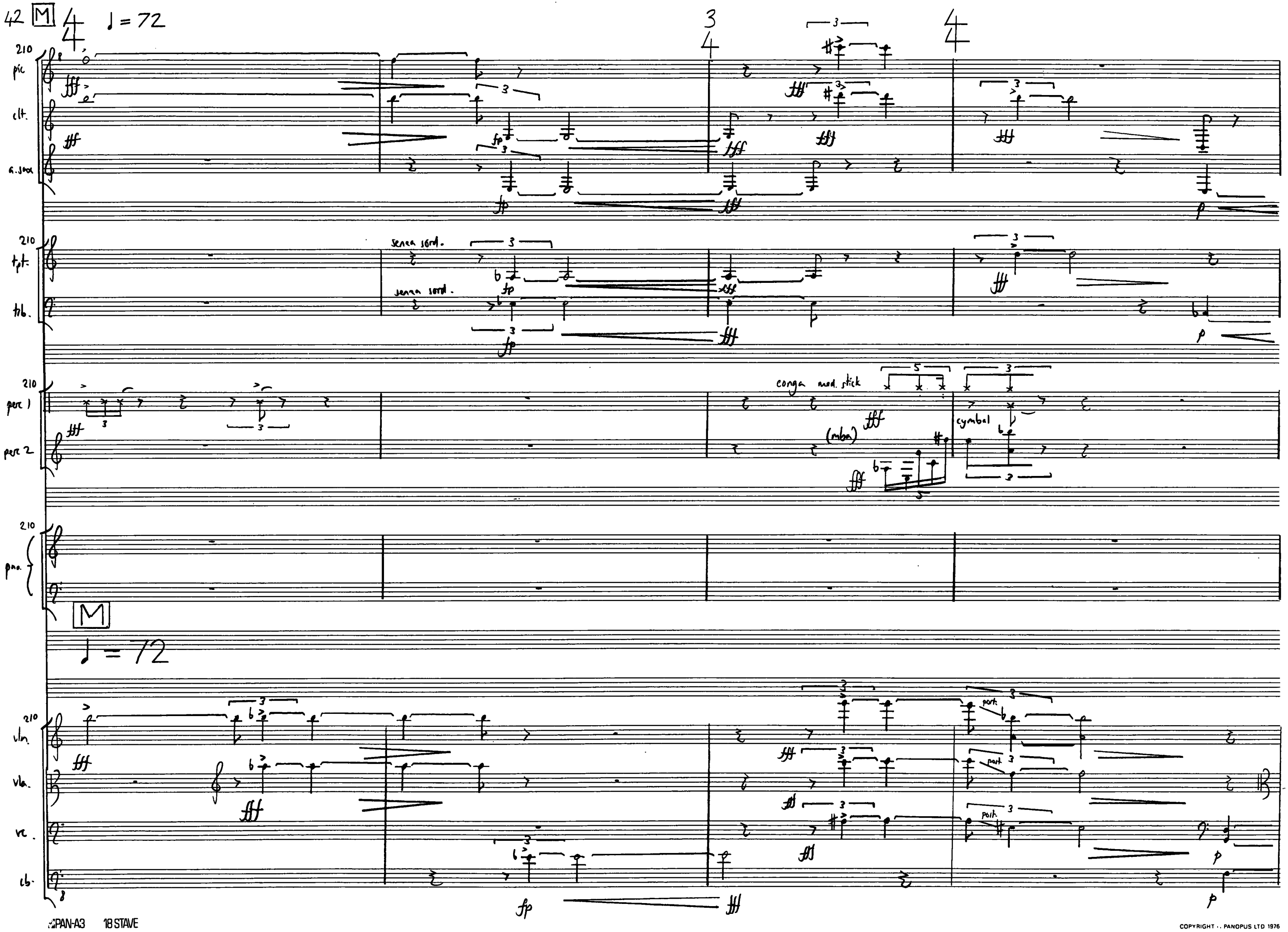

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214 pic

clt.

a.sax

214 tpt

hn.

214 perc 1

perc 2

214 pno

214 vln.

vla.

vc

cb.

flute

con legno batt.

arco

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44

flute

clt.

a.sax

tpt.

trb.

perc 1

perc 2

pno.

vln.

vla.

vc.

cb.

xylophone

loco

ped

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N

222

flt.

clt.

a.sax

p

p

222

tpt.

trb.

p

222

15

perc 1

perc 2

tamtam (hard stick)

(drag on the rim)

p

f

222

5

7:8

pno

fff

8

N

222

vln.

vln.

va.

vc.

db

8

p

sord s.p. n. vib.

pp sempre

7:8

7:8

7:8

PAN-A3 18 STAVE

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46

227

flt.

clt.

a-sax

echo tone

ppp

227

tpt.

trb.

227

perc 1

perc 2

227

pno

227

vln.

vla.

vc.

cb.

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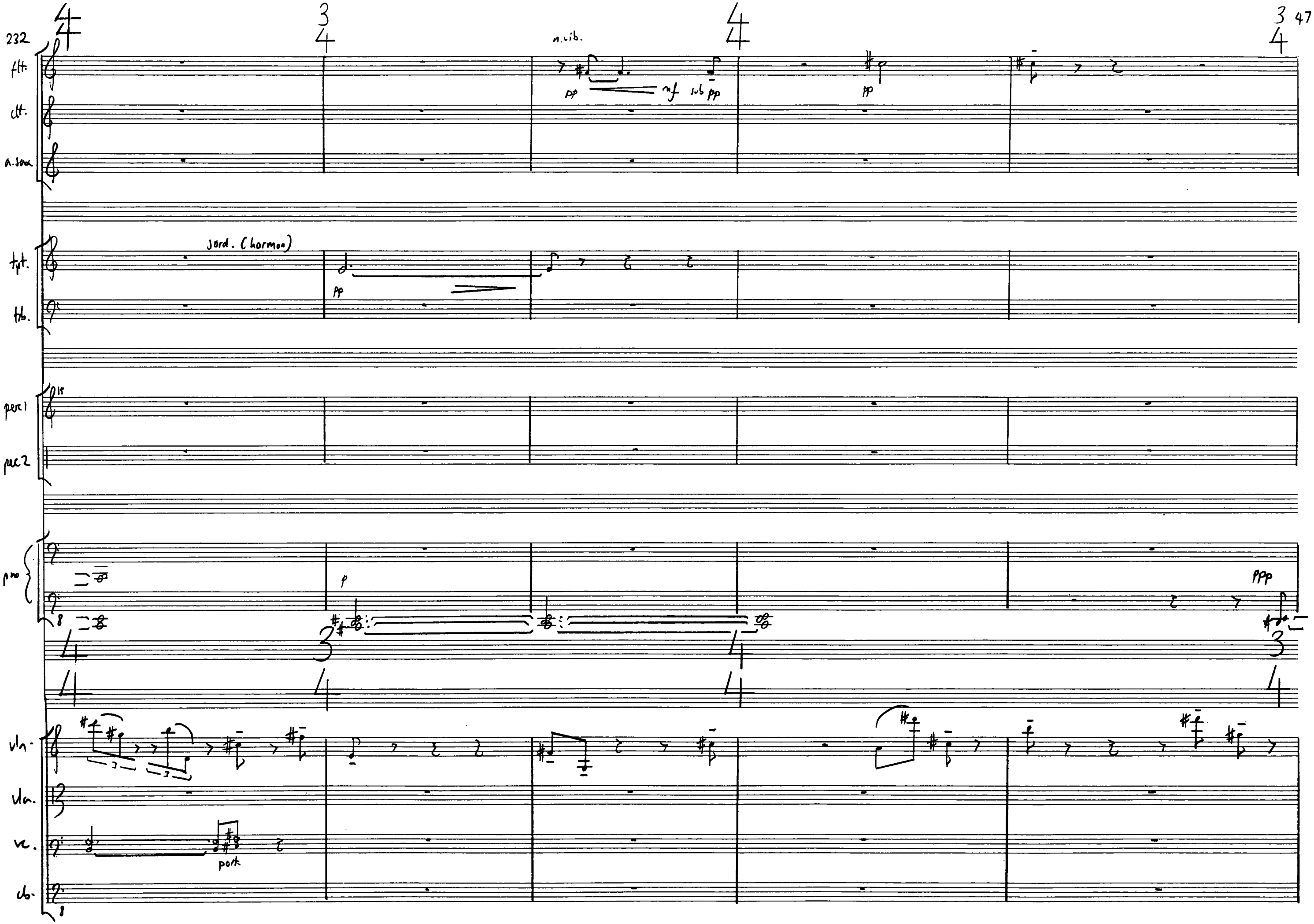

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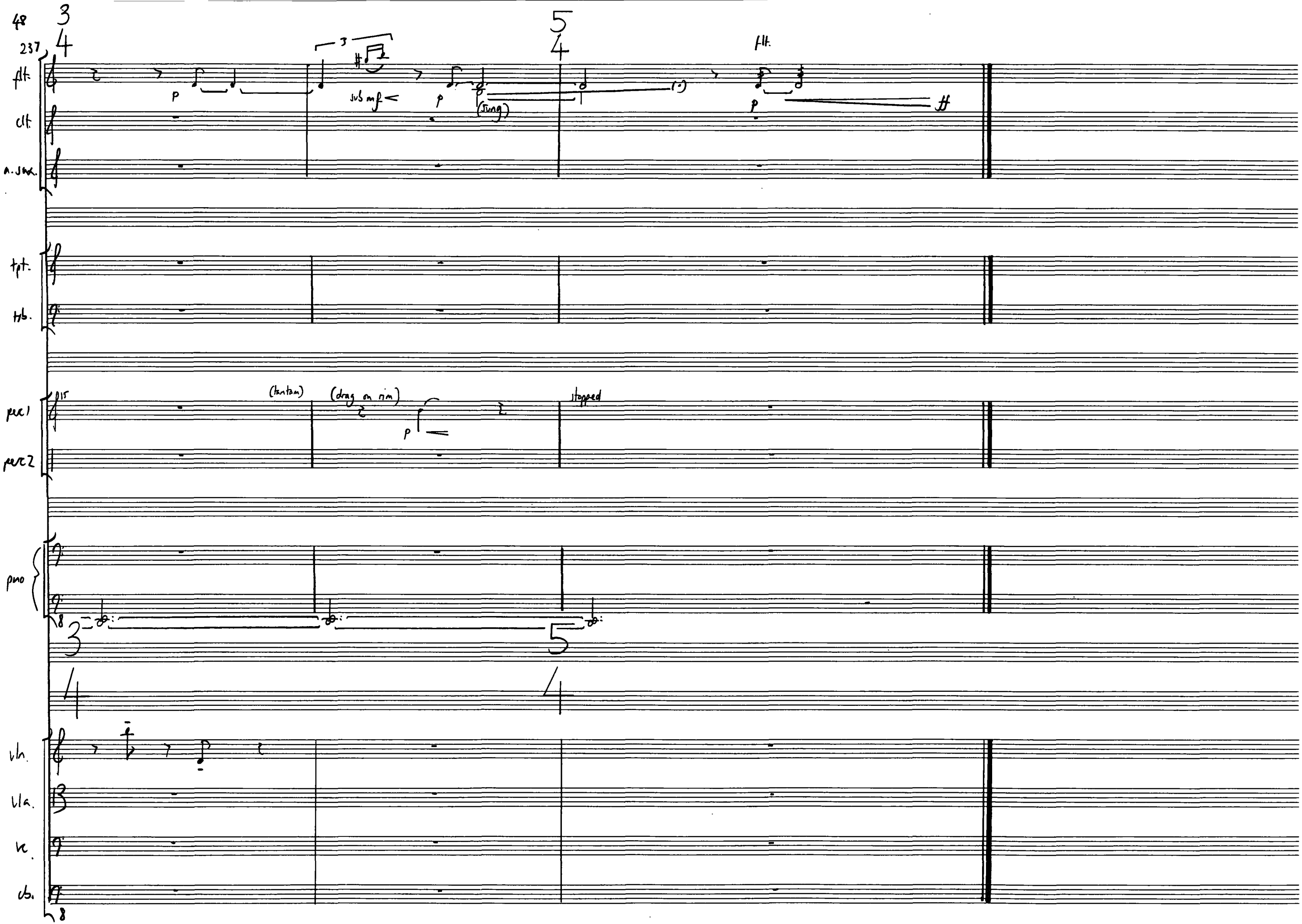

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II

4/4 ♩ = 58

distantly

sempre n. vib.

piccolo

clarinet B♭

clarinet A

ppp

trumpet B♭

trombone

* air only

p

crystal glasses (fade in)

percussion1

ppp

percussion2

vibraphone arco*

pp

pp

pp

(* - cello bow)

harpsichord

4/4 ♩ = 58

distantly

violin

sord.

pp

3

3

viola

sord.

violoncello

sord.

double bass

pp

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pic
clt Bb
clt A
tpt
tbn
per 1
per 2
hrn
vln
vla
vc.
cb.

pp
mp
mp
mp
* pitch bend/breath tone
p
*air only
large suspended cymbal (wire brush)
mp
(arco)
p
* with fingernail
crystal glass
ppp
(arco)
pp
(sord) s.t. n.vib.
pp
gliss
gliss
mp
mp
mp
(sord.) s.t. n.vib.
pp
mp
sord s.t. n.vib.
pp
gliss
mp
pp
pp
pp

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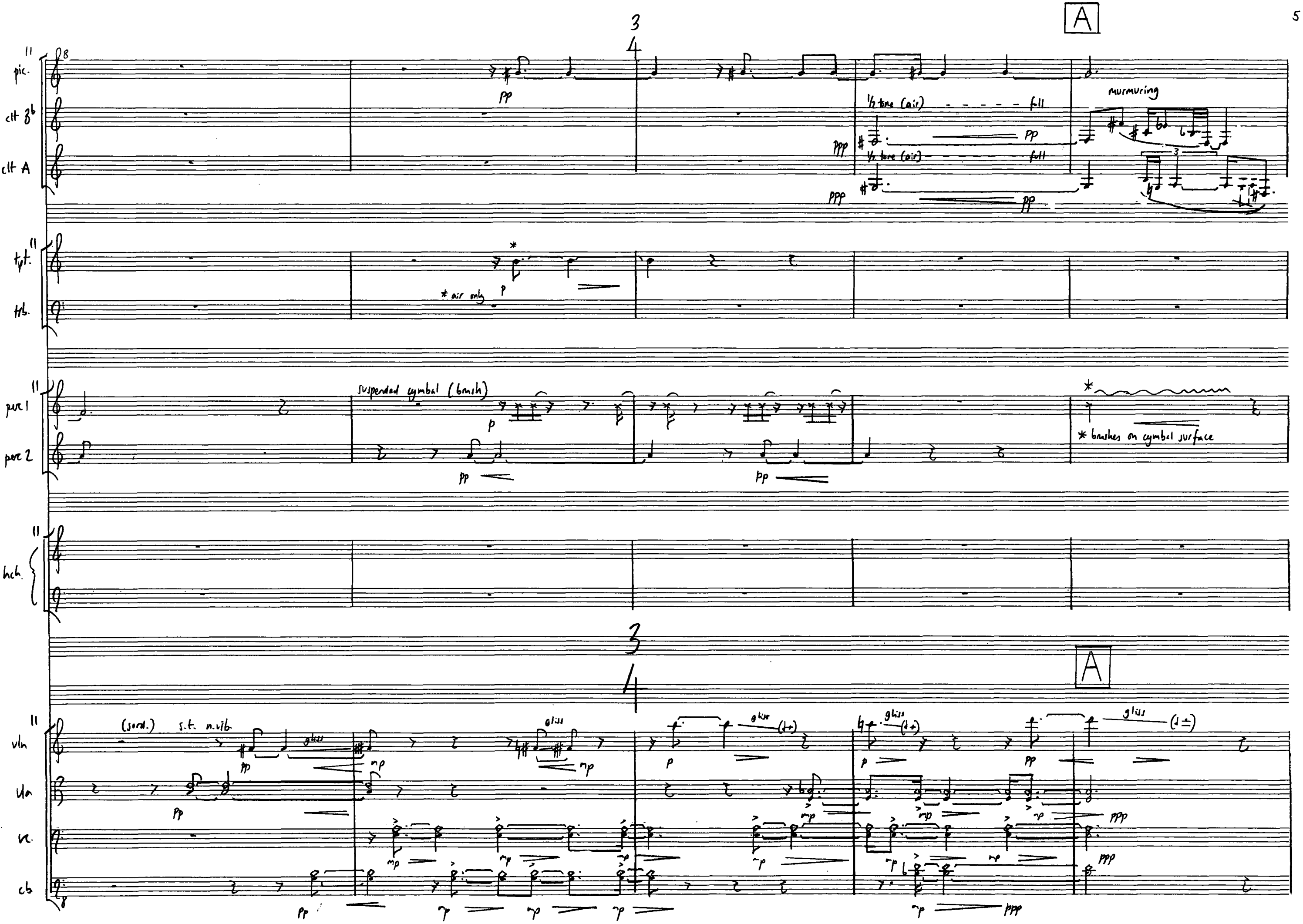

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pic.
clt Bb
clt. A
tpt.
tbn.
perc 1
perc 2
hch
vln.
vla.
vc.
cb.

(vibraphone)

* with finger tips

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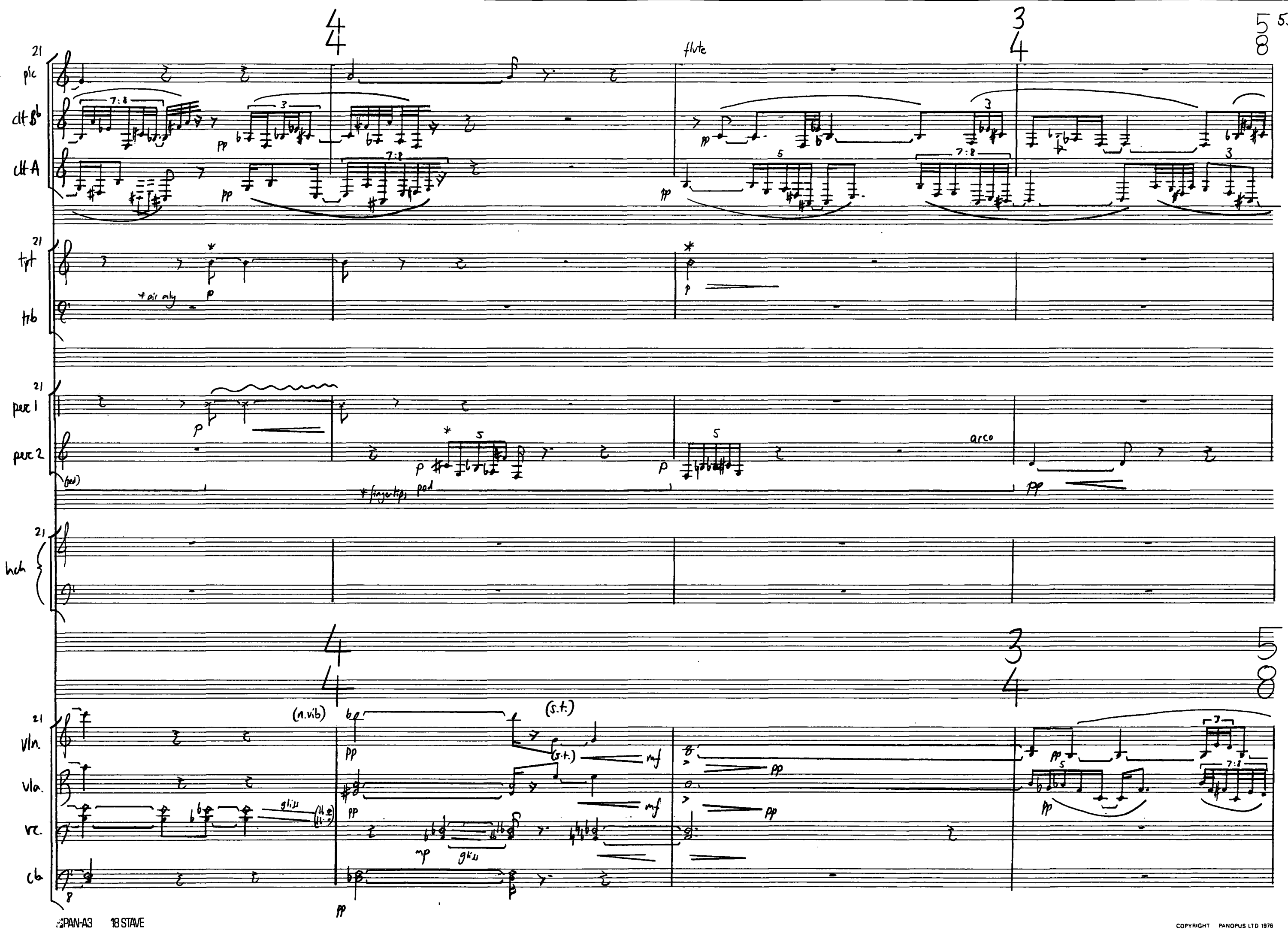

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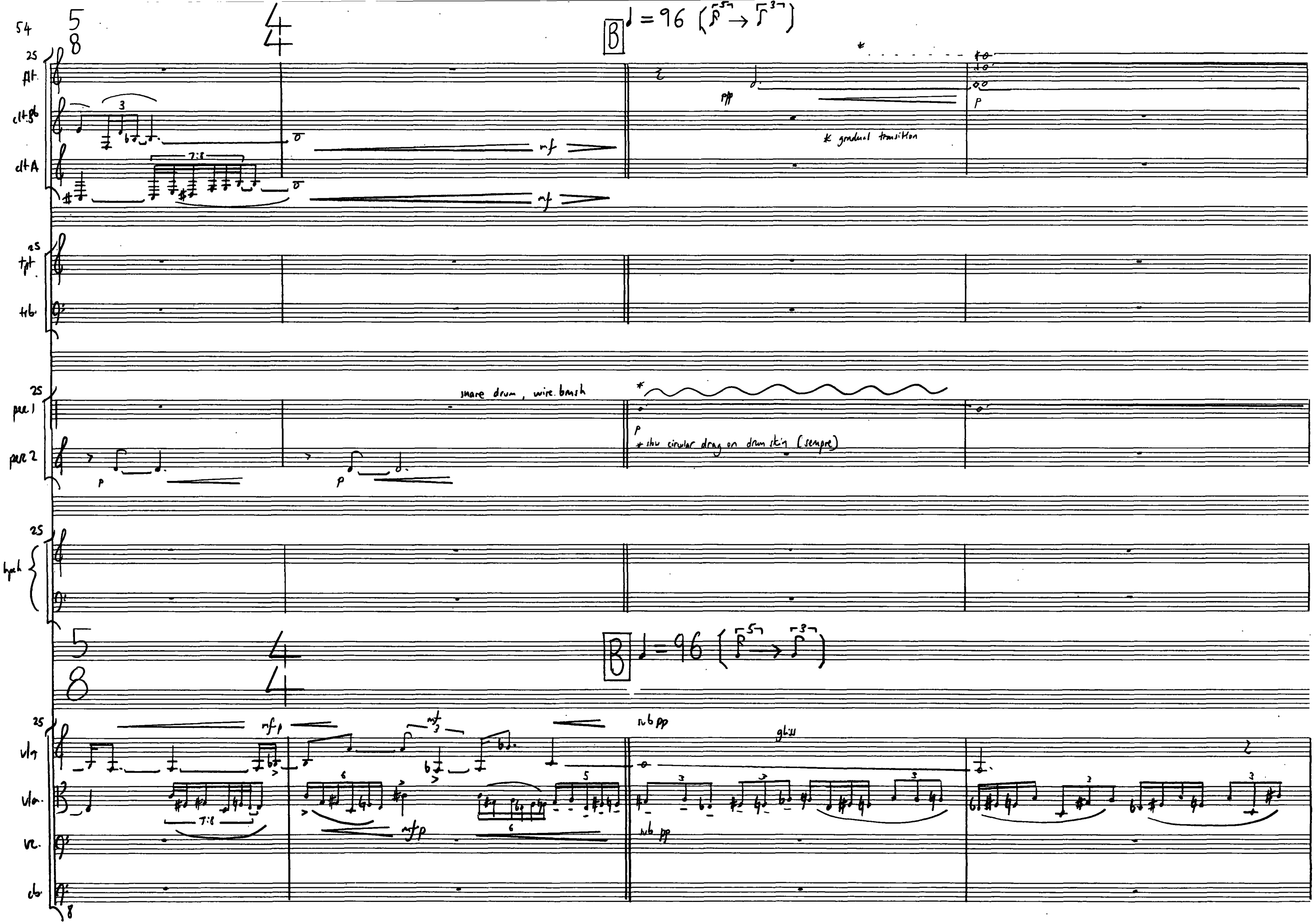

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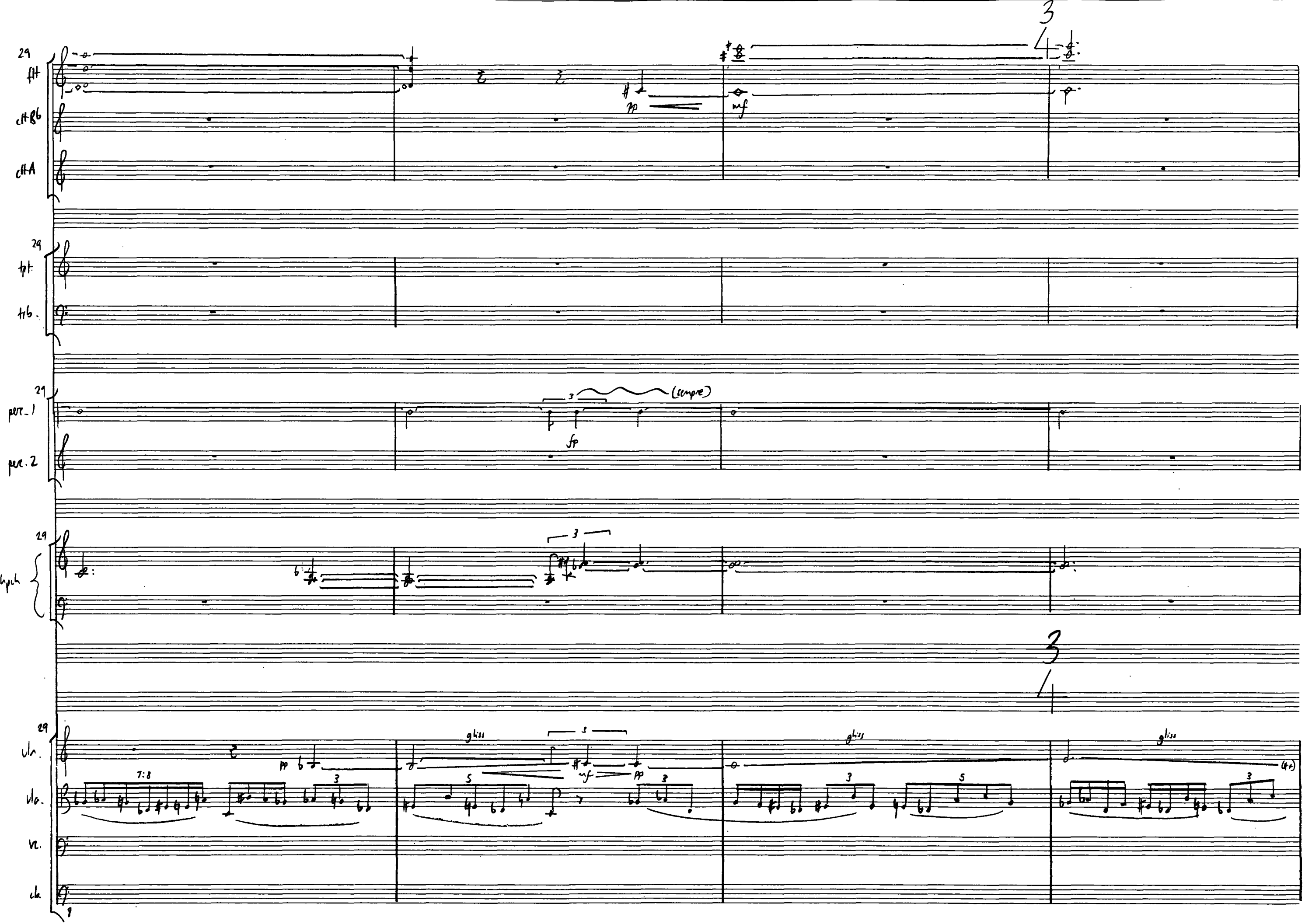

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33

fl.

cl. B♭

cl. A

distant, breathy tone

pp

33

tpt.

tb.

33

per. 1

per. 2

(sempre)

fp

(sempre)

fp

33

harp

8'q'

C

33

vln

vla

vc

cb

pp

pp

gliss.

pp

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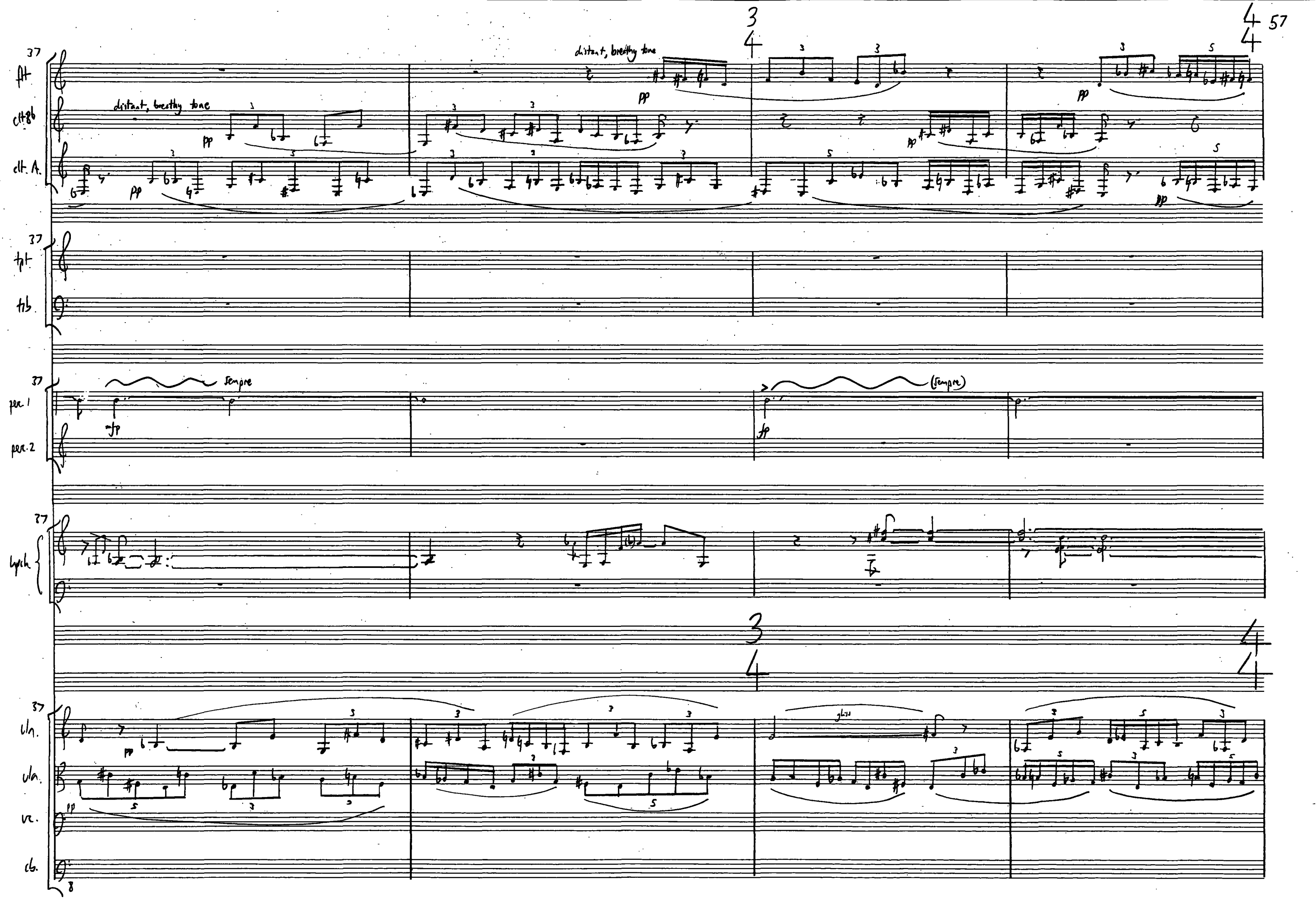

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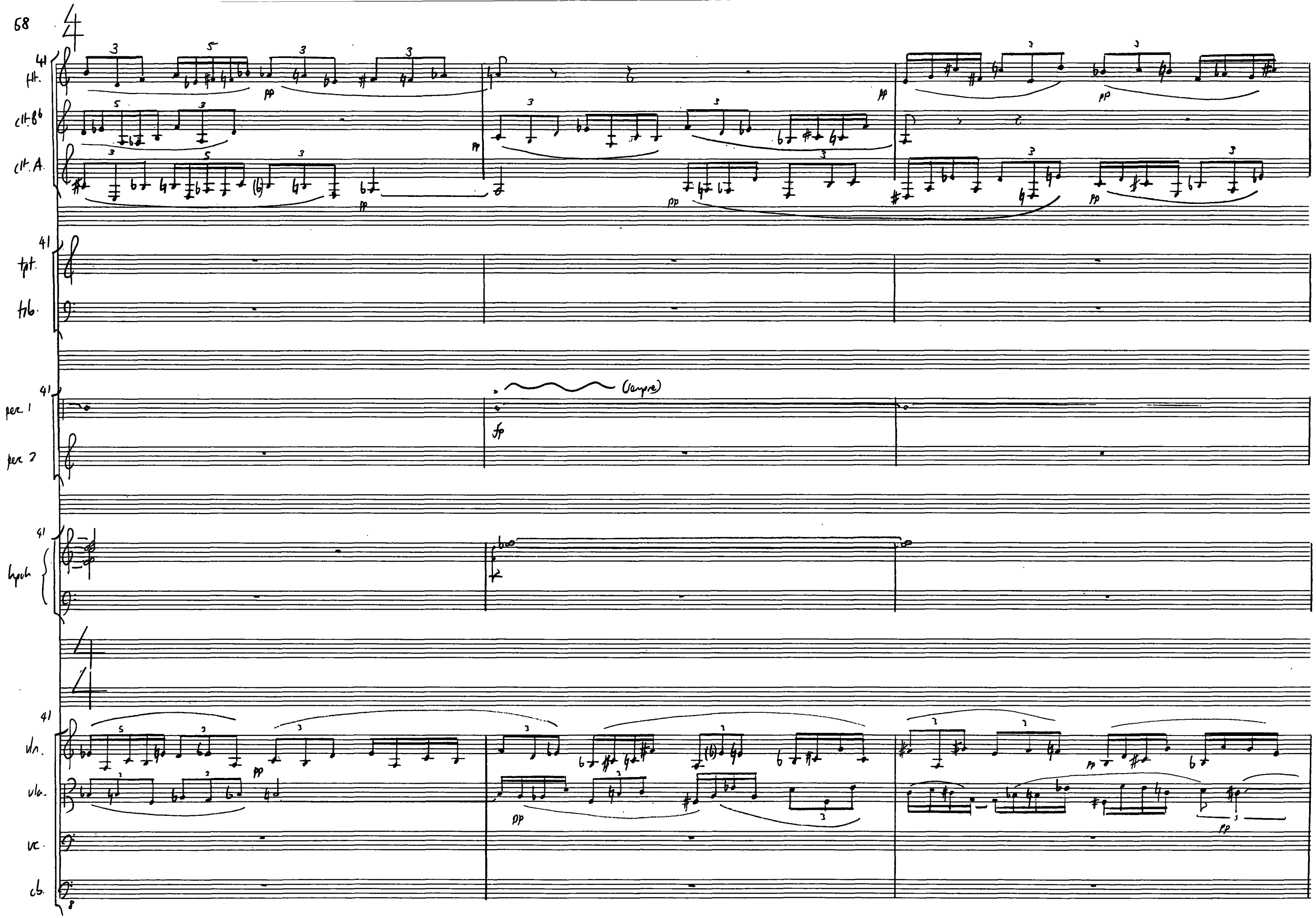

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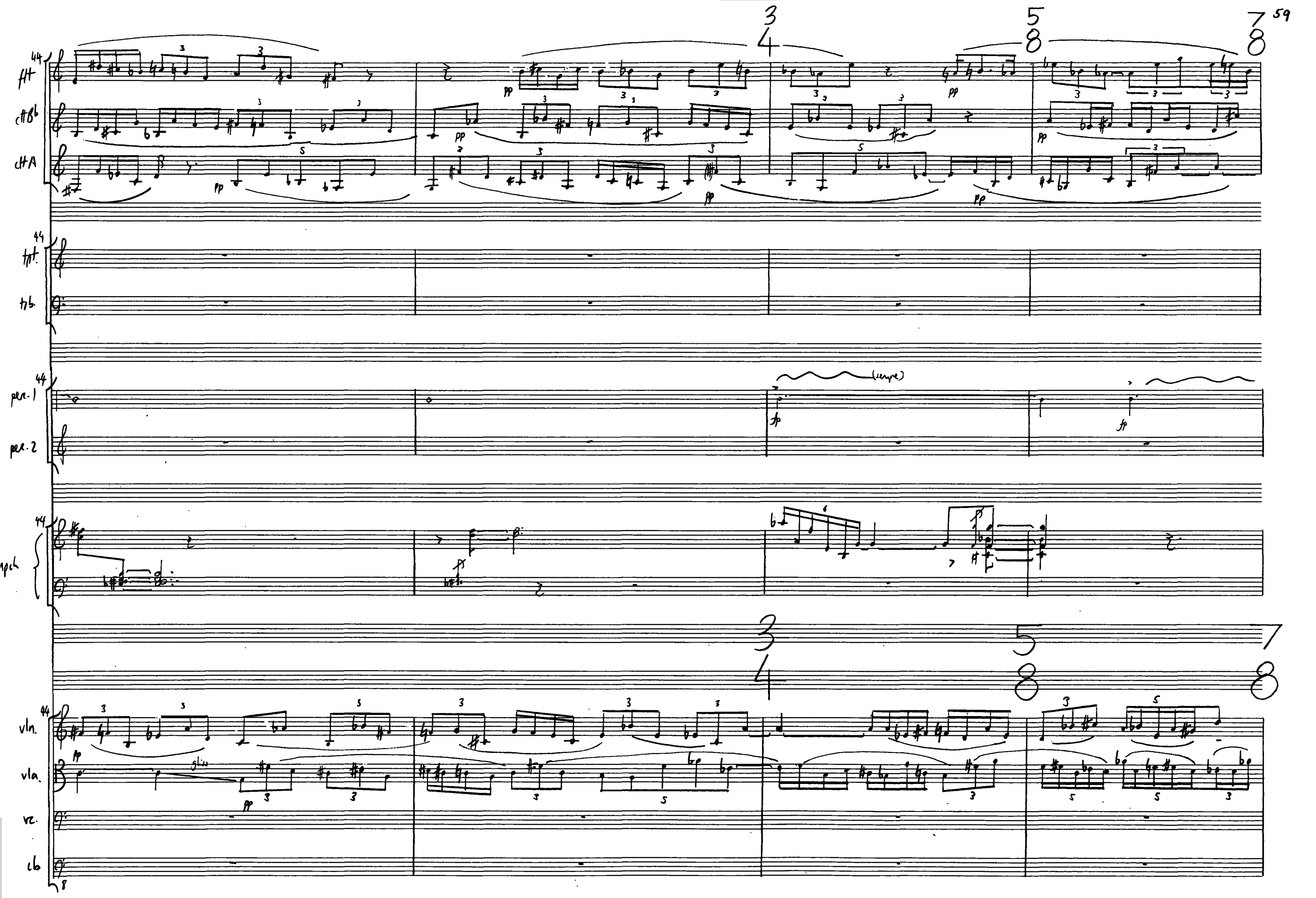

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60

D

fl.

clt. Bb

clt. A.

tpt.

tb.

per. 1

per. 2

hpch

vn.

vla.

vc.

cb.

SPAN-A3 18 STAVE

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52

flt.

clt.Bb

clt.A

tpt.

tb.

perc.1

perc.2

hpch

vln.

vla.

vc.

cb.

senza sord.

senza sord.

senza sord.

PAN-A3 18 STAVE

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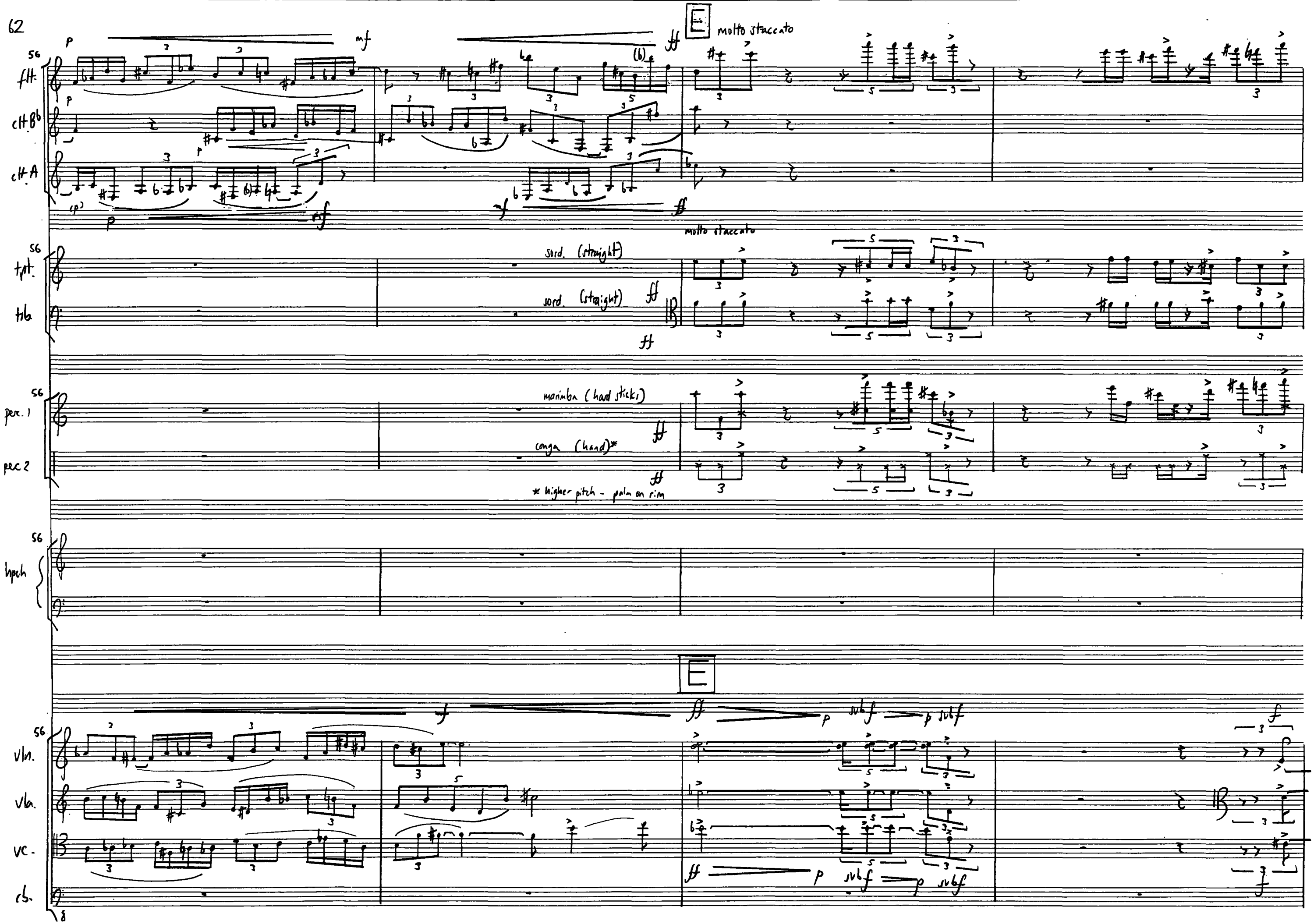

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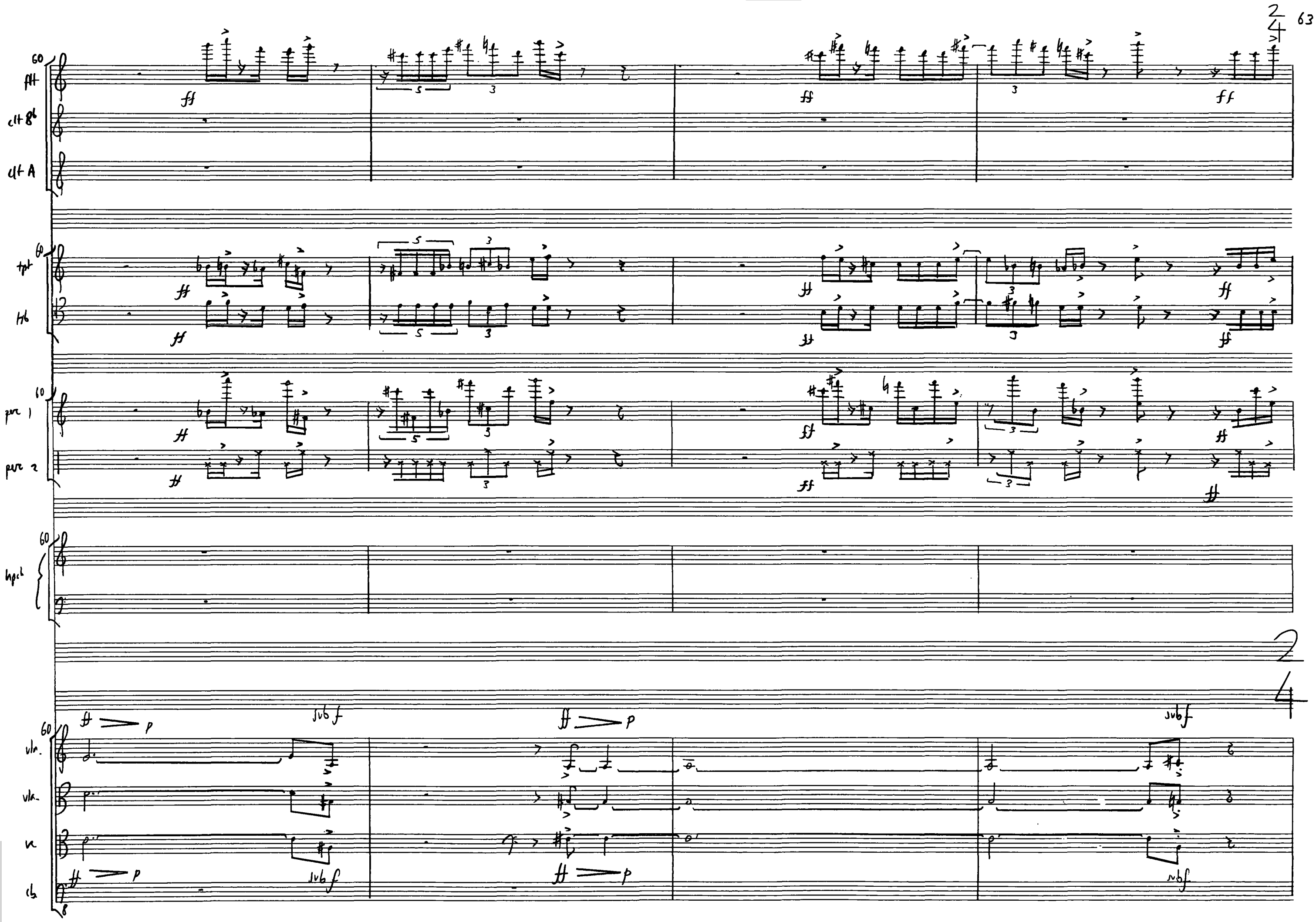

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64

fl. 64

clt. Bb

clt. A

64

tpt.

Hb.

64

pic. 1

pic. 2

64

hpch.

buff stop

64

vln.

molto s.p.

vla.

molto s.p.

vc

molto s.p.

cb

molto s.p

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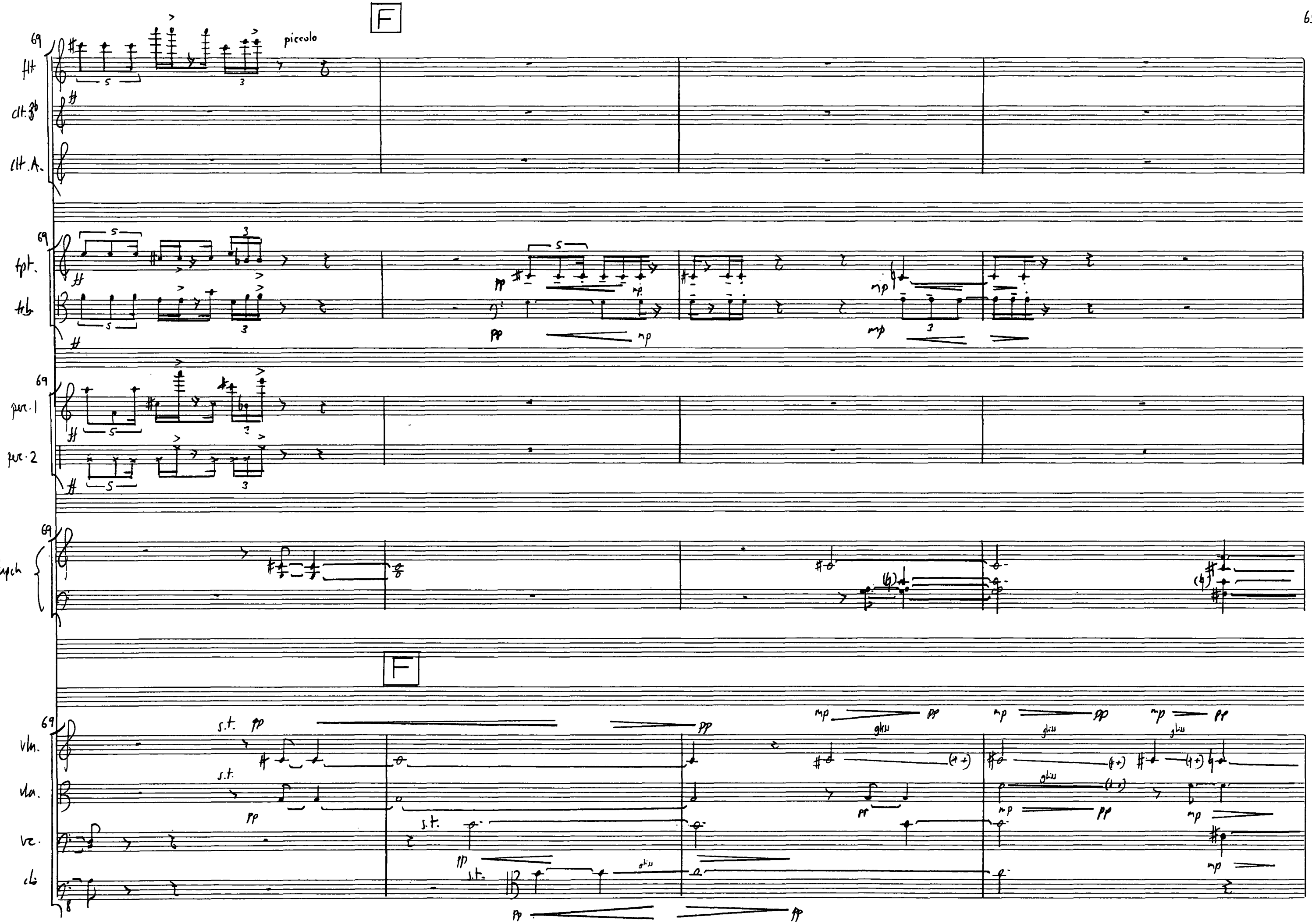

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73

pic.

clt. Bb

clt. A

73

tpt.

tbn.

sord. (cup)

sord. (cup)

73

perc. 1

perc. 2

73

hpch

(buff stop)

73

vln.

vla.

vc.

cb.

PAN-A3 18 STAVE

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77

p/c.

cl.B♭

cl.A

77

tpt.

hn.

77

perc.1

perc.2

77

hpch.

77

vln.

vla.

vc.

cb.

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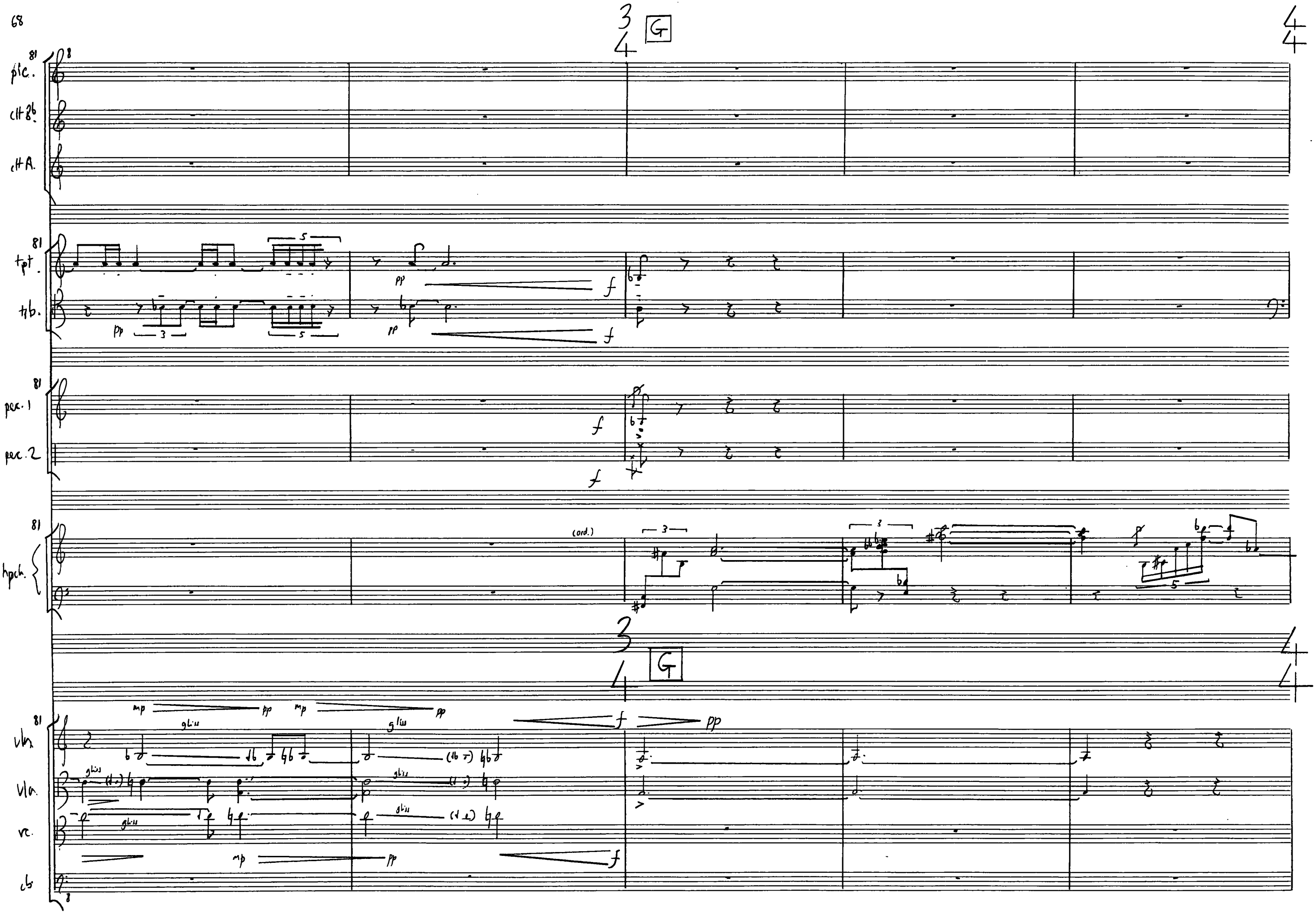

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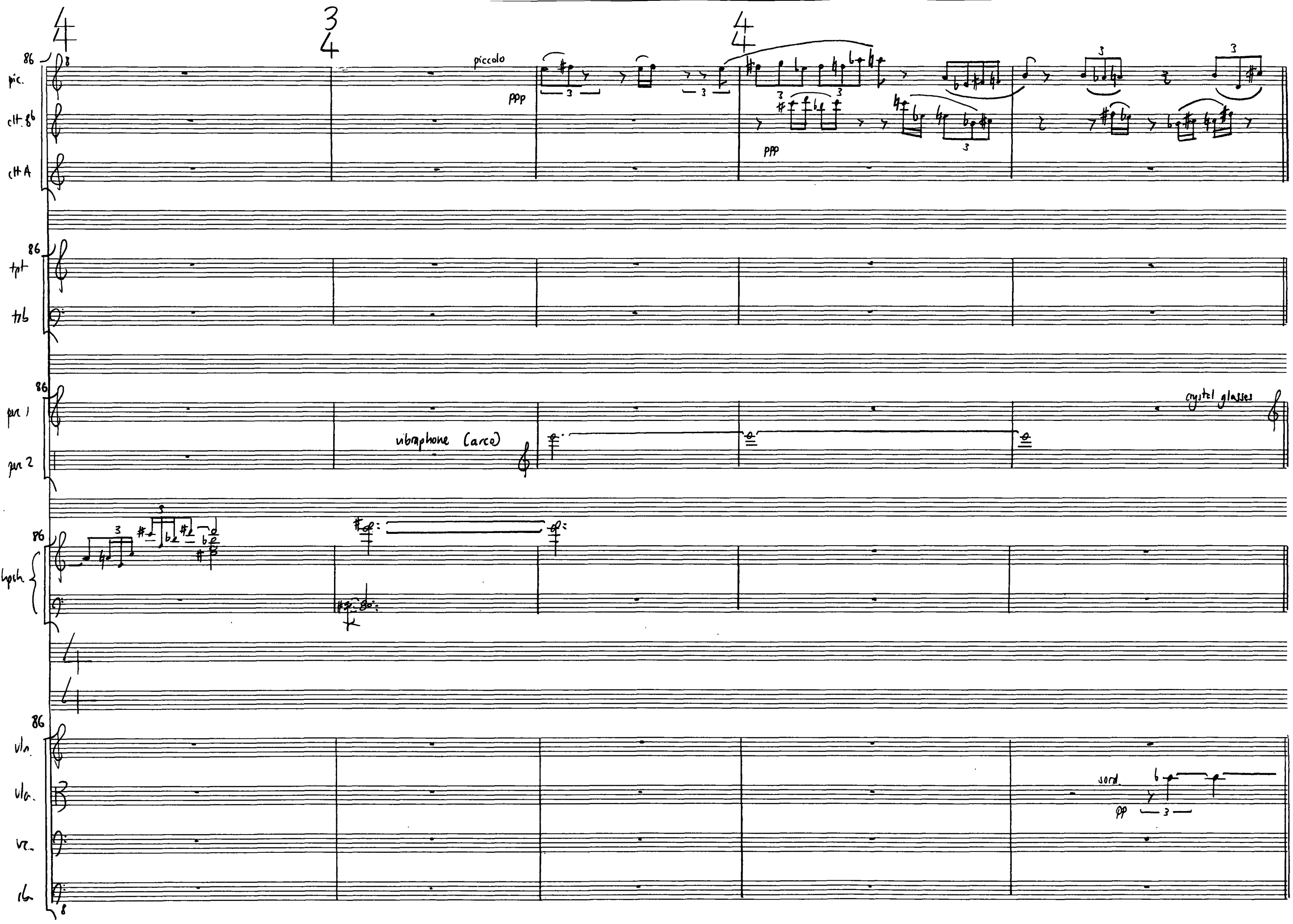

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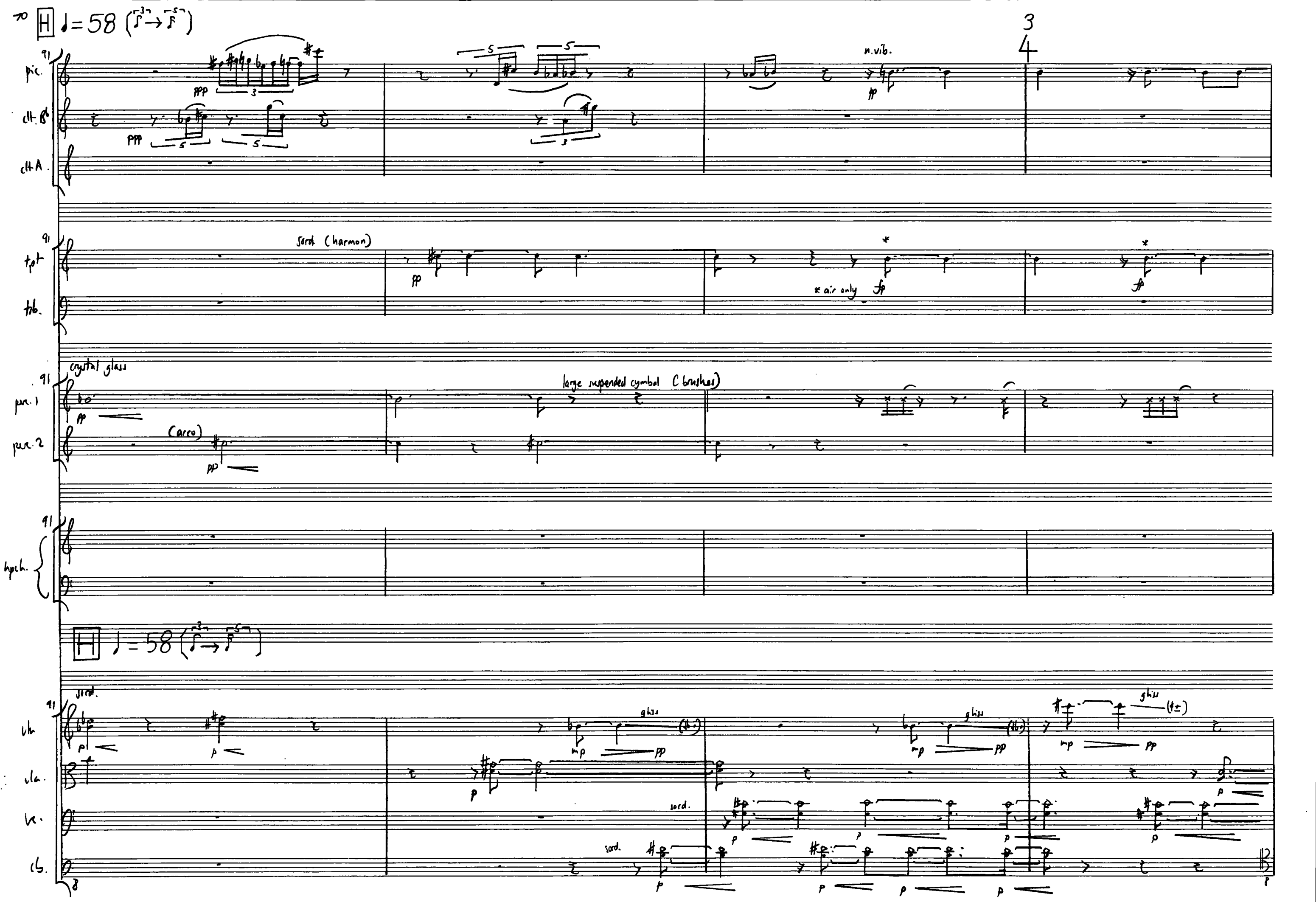

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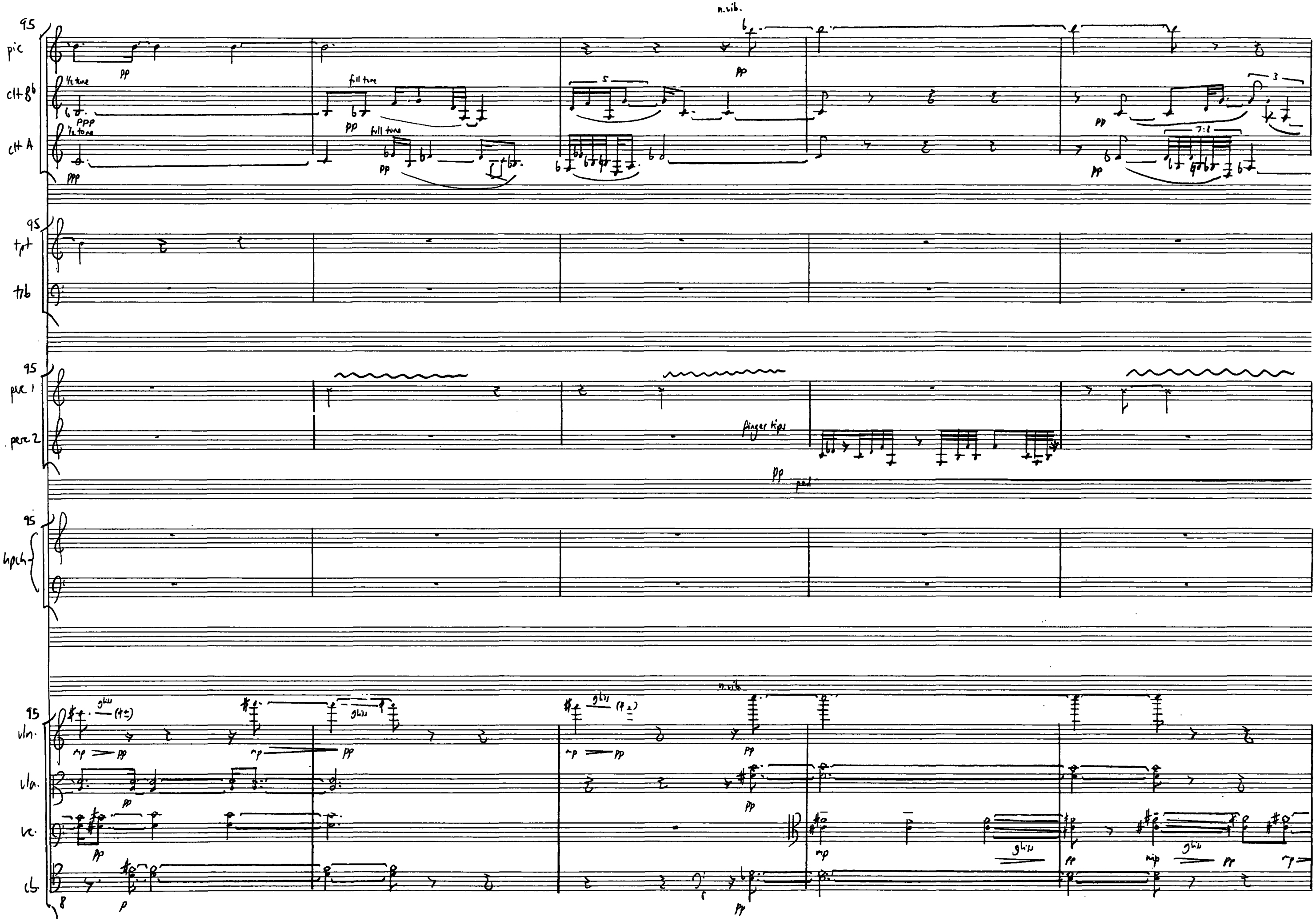

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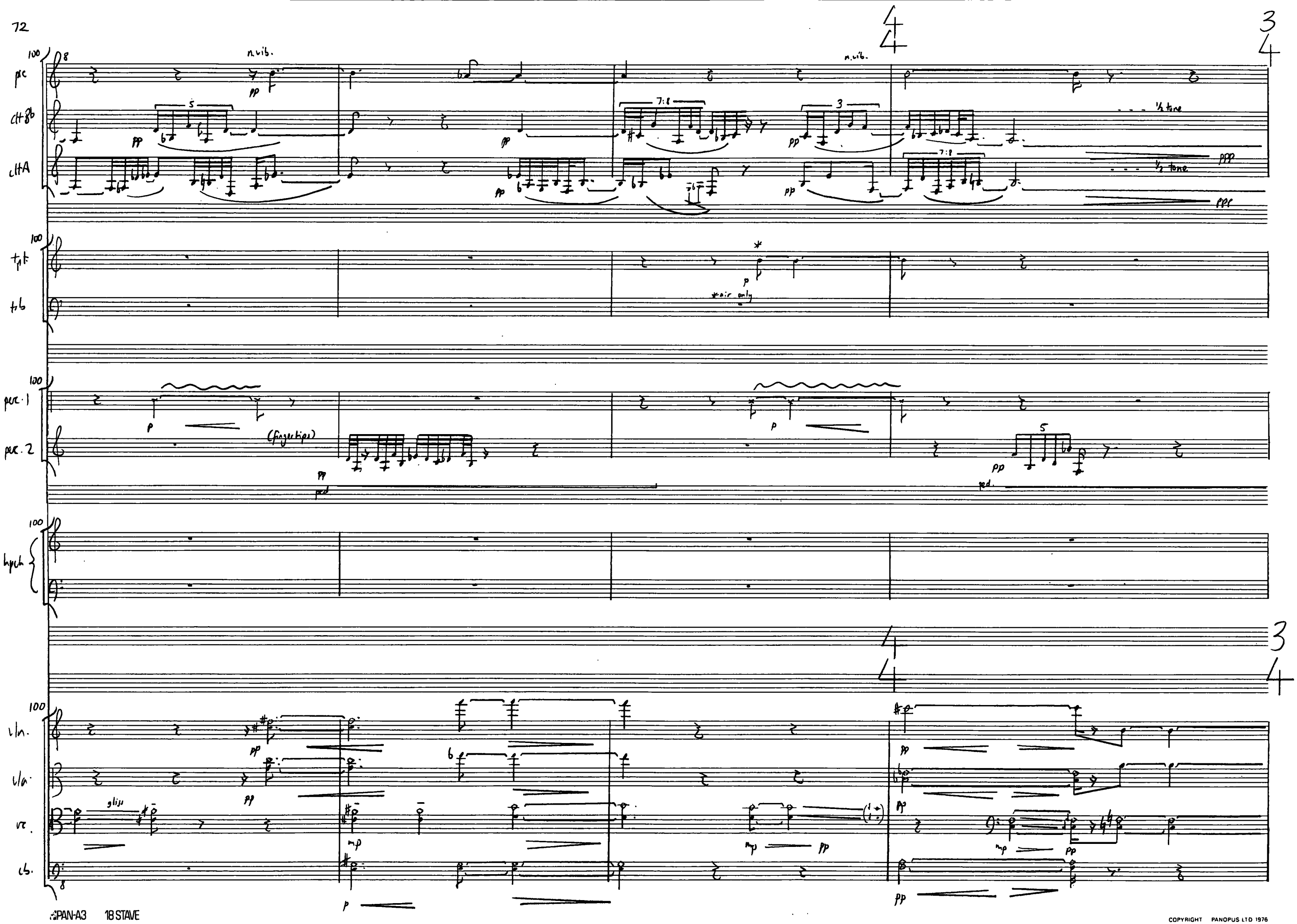

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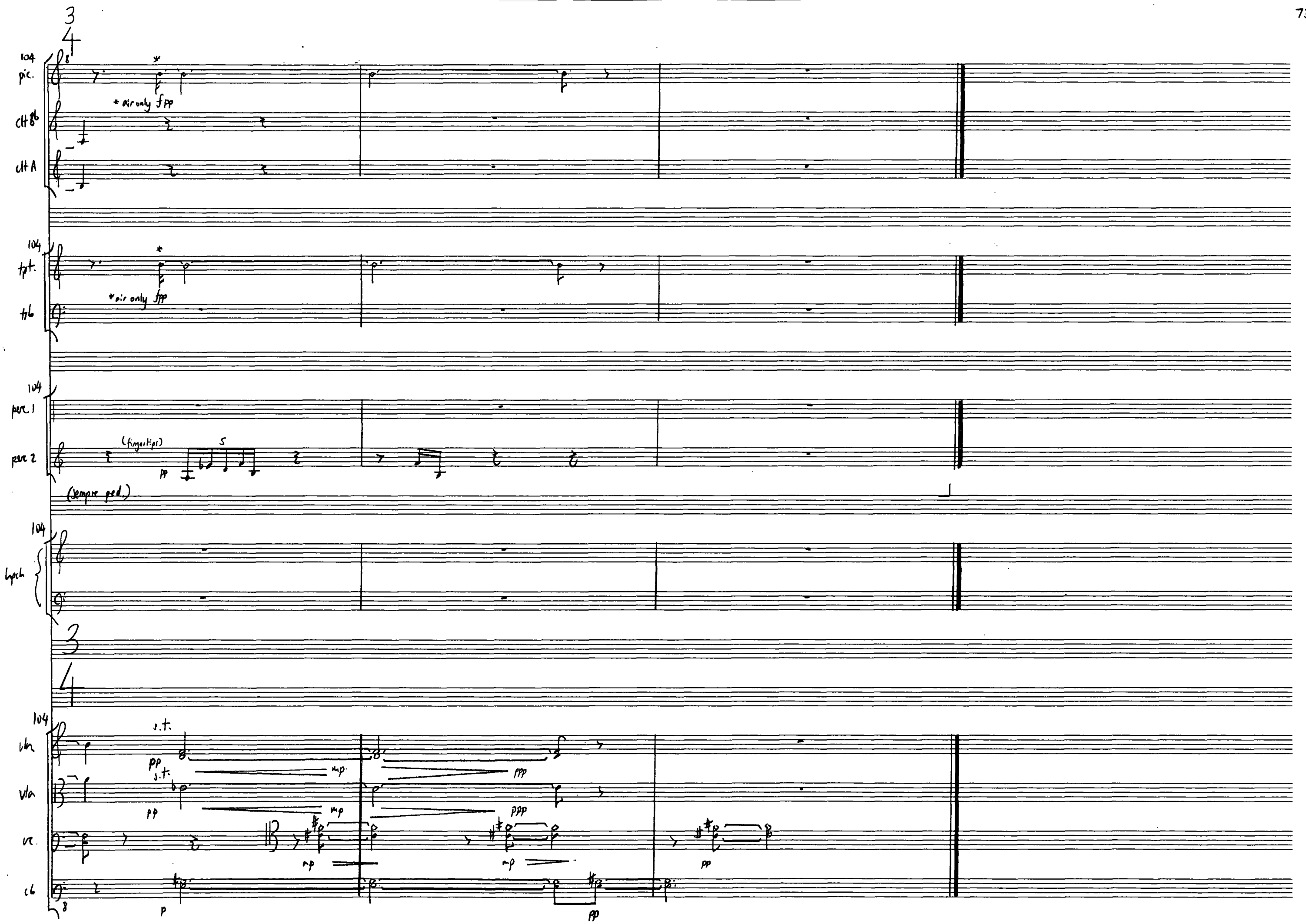

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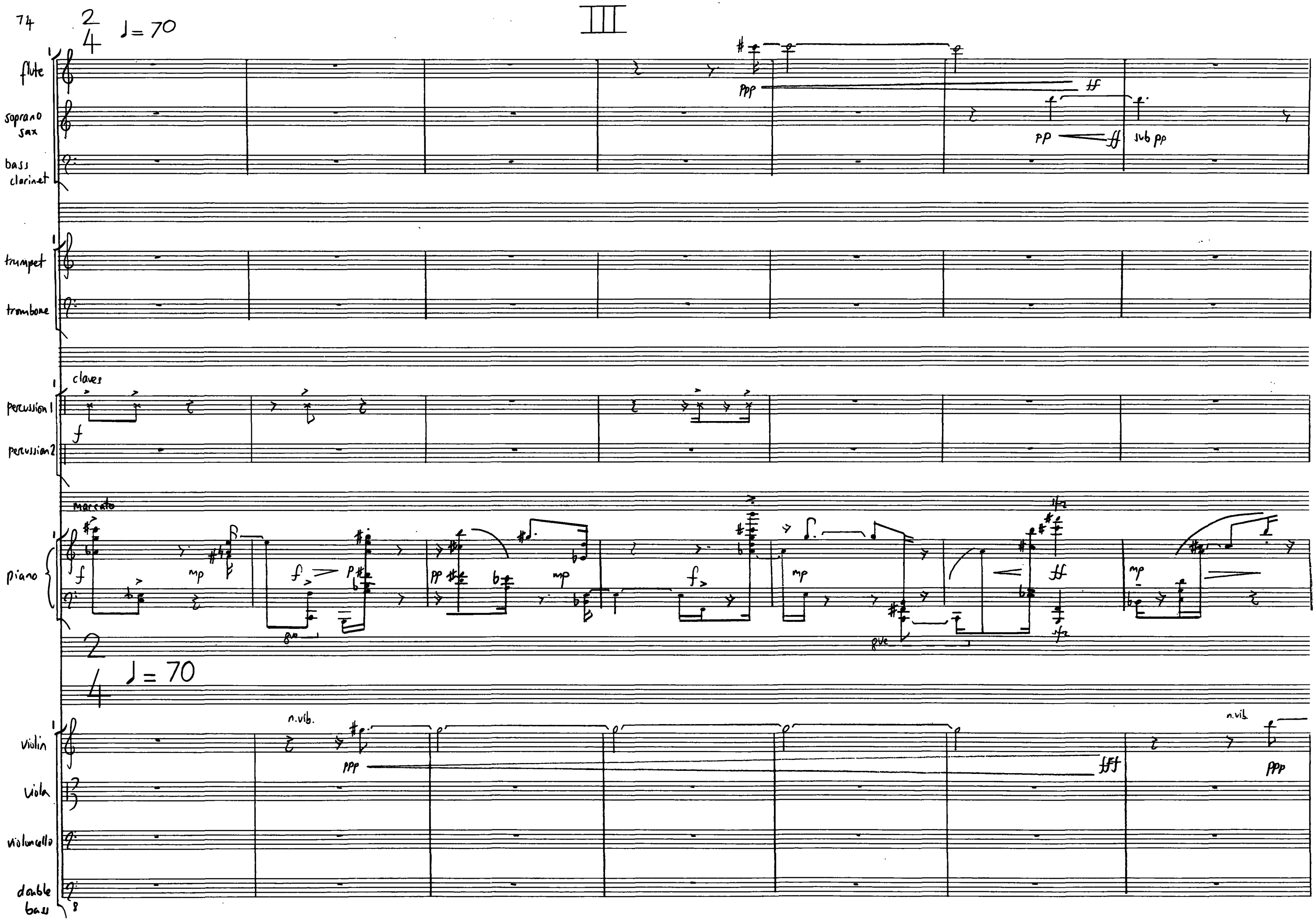

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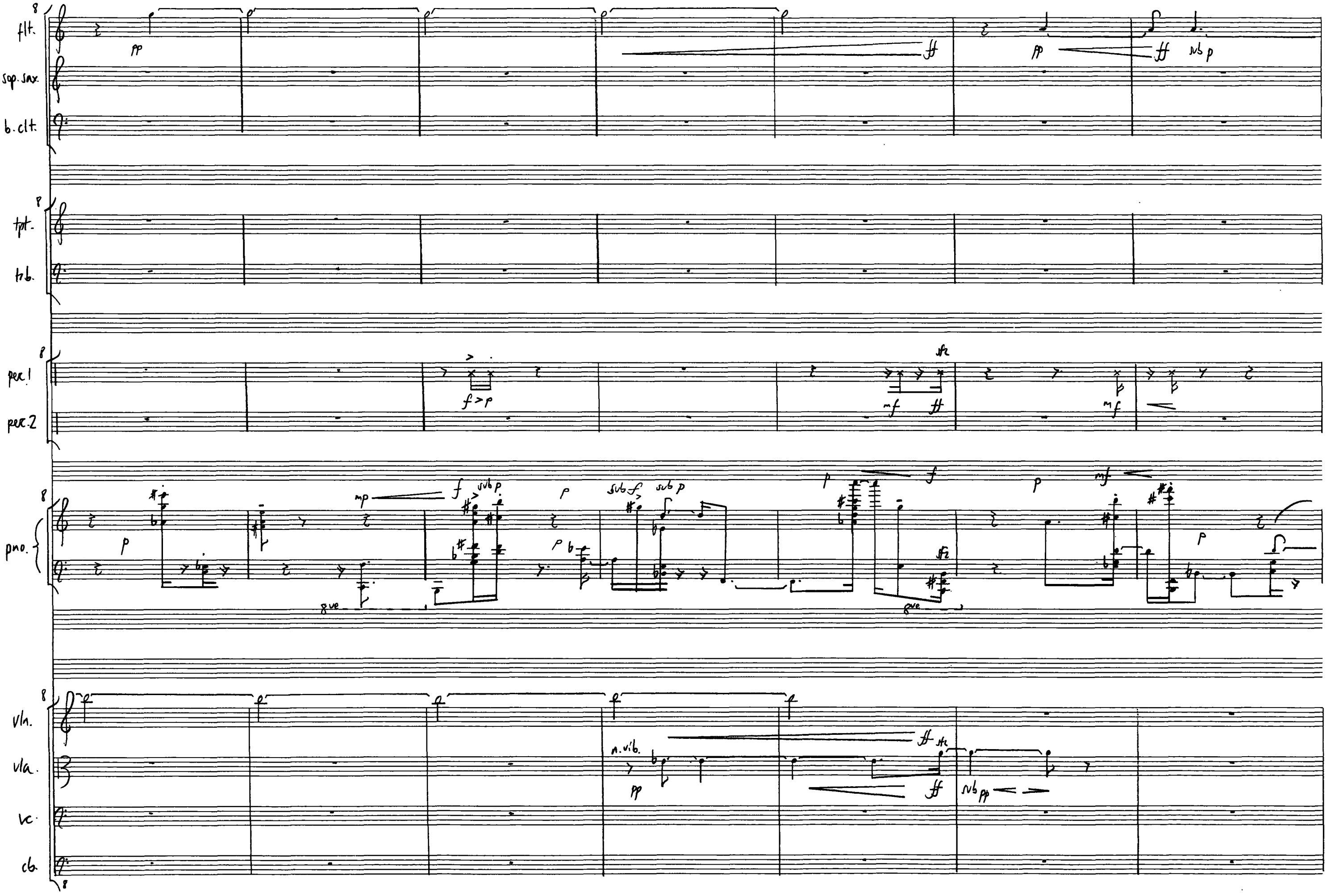

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15

flt.

sop. sax.

b. clt.

15

tpt.

tbn.

15

perc. 1

perc. 2

15

pno.

15

vln.

con legno batt.

vla.

con legno batt.

vc.

cb.

8

PAN-A3 18 STAVE

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22

flt.

sop. sax.

b. clt.

perc 1

small suspended cymbal (snare drum stick)

perc 2

guiro

pno

A

vln.

vla.

vc.

cb.

con legno batt.

gliss.

n. vib.

prol.

PAN-A3 18 STAVE

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27

flt.

sop. sax.

b. clt.

pp

ff

ff

legato

ffpp

27

per. 1

per. 2

(cymbal)

(guiro)

f

pp

27

pno

pp

f

ff

pp

legato

8va

ped

27

vln.

vla.

vc.

cb.

ff

fp

ff

n. vib.

n. vib.

gliss.

gliss.

3

fp

ff

push.

pp

pp

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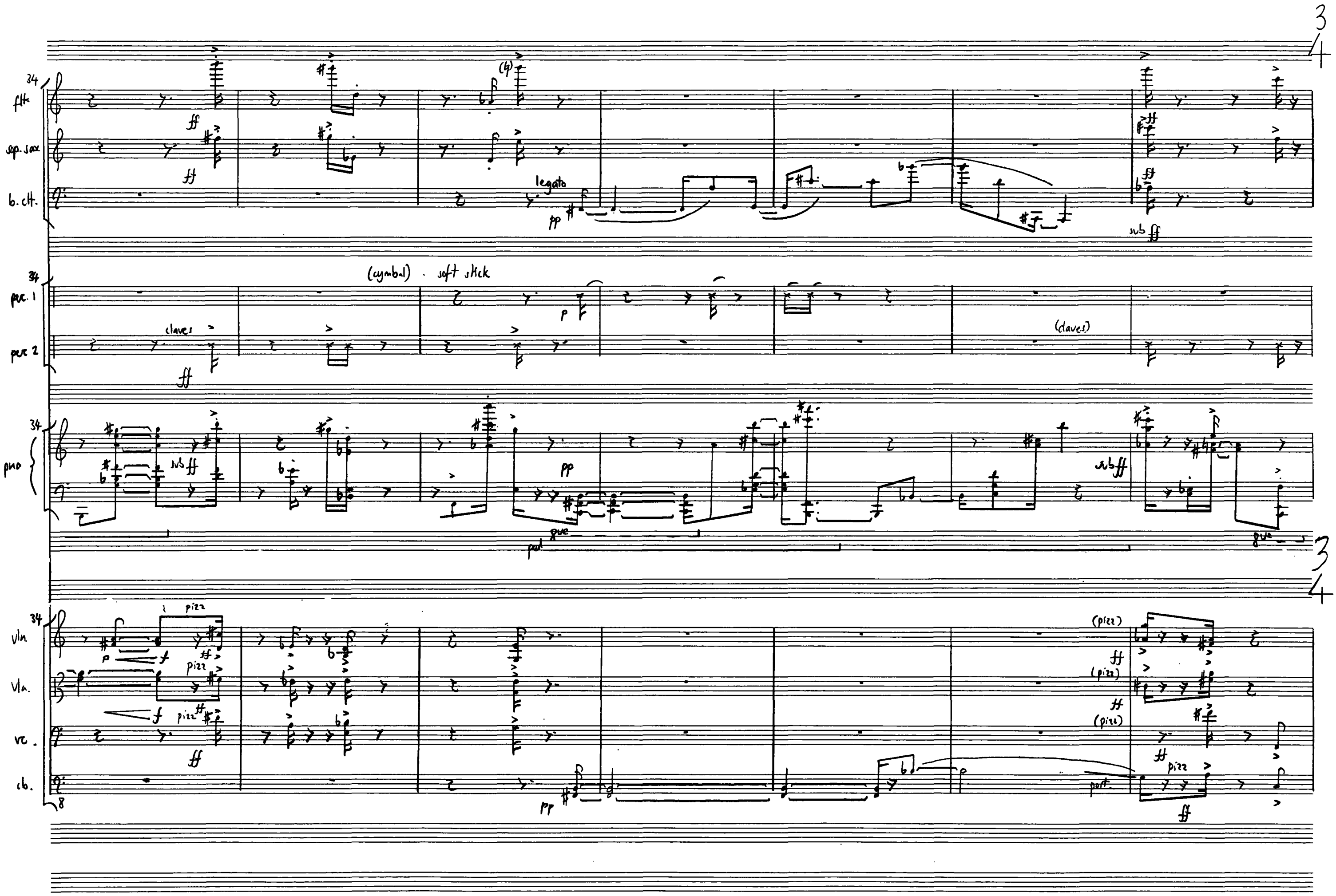

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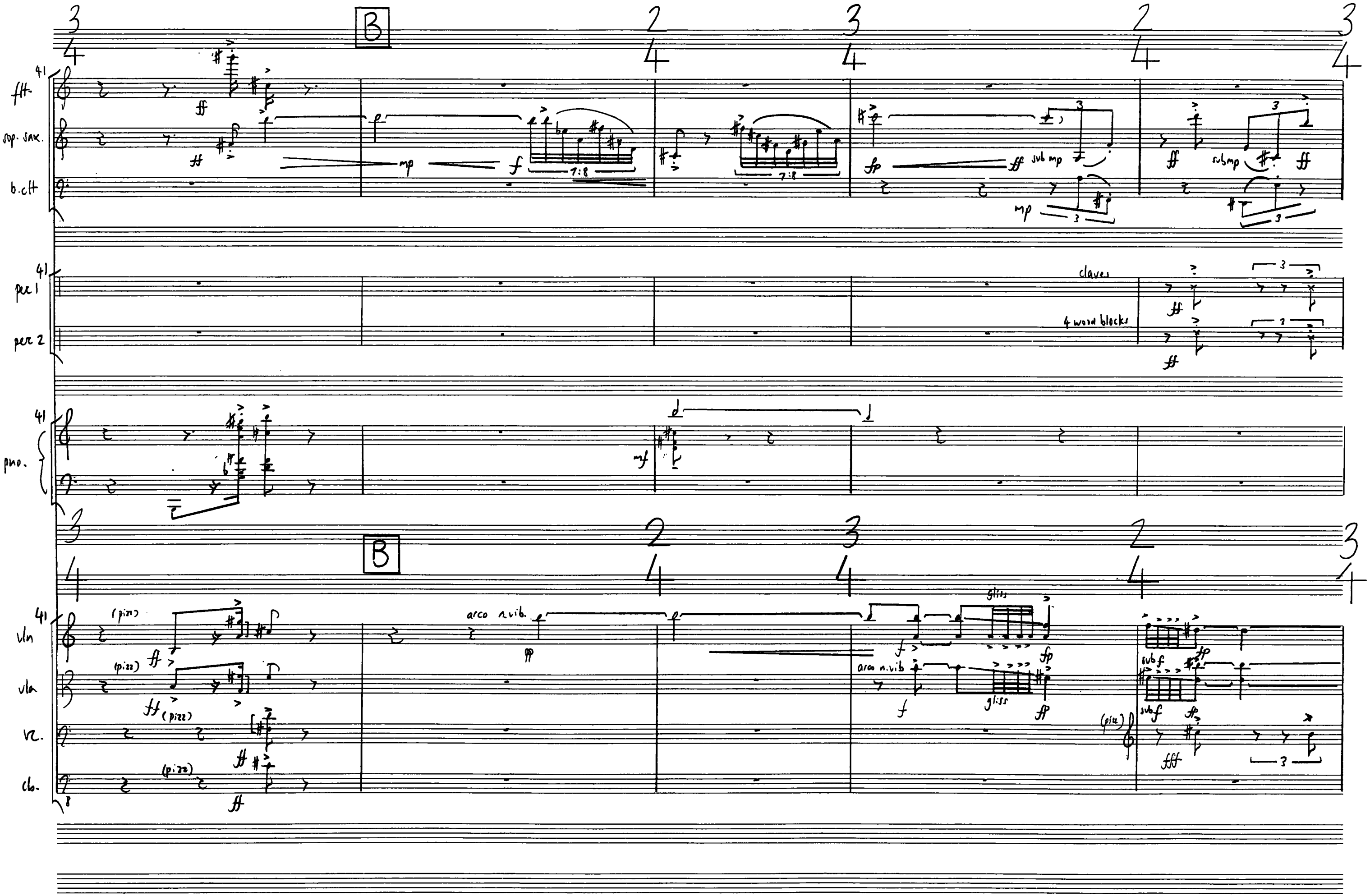

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46

flt.

sop sax.

b.clt.

per. 1

per. 2

pno

vln.

vla.

vc

cb.

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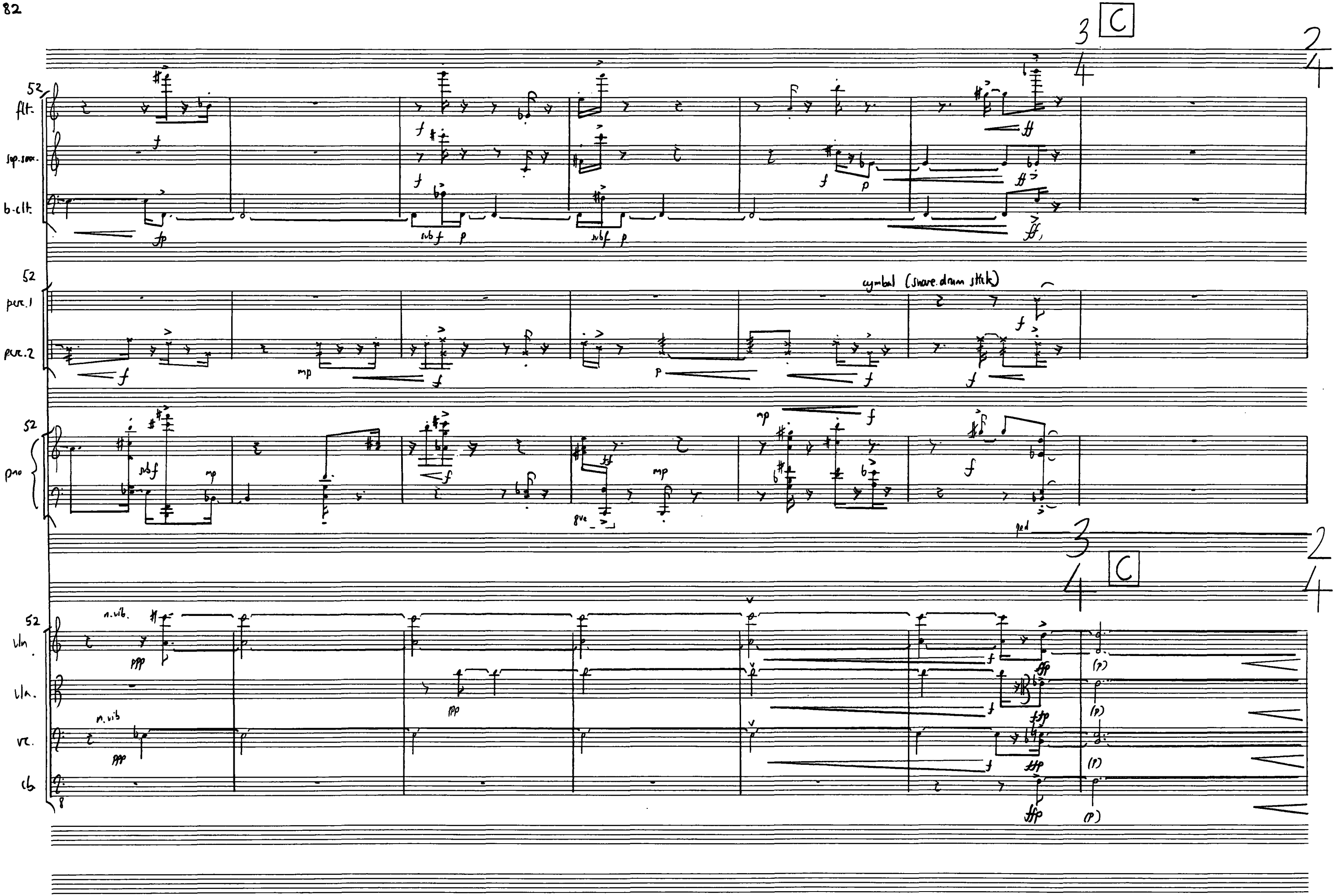

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59
fl
sp sax
b. clt
59
tpt.
59
perc. 1
perc. 2
59
pno
59
vln.
vla.
vc
cb

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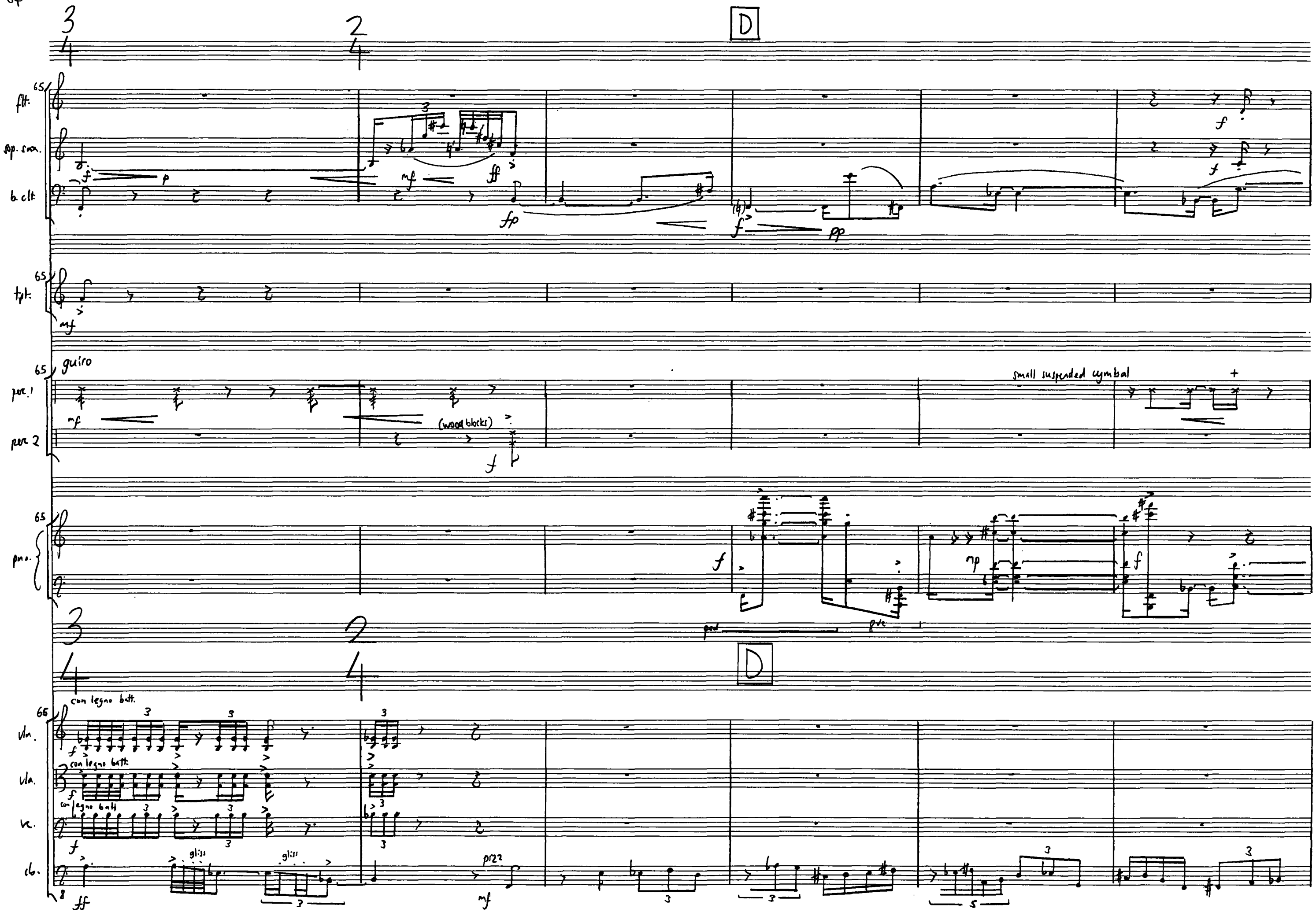

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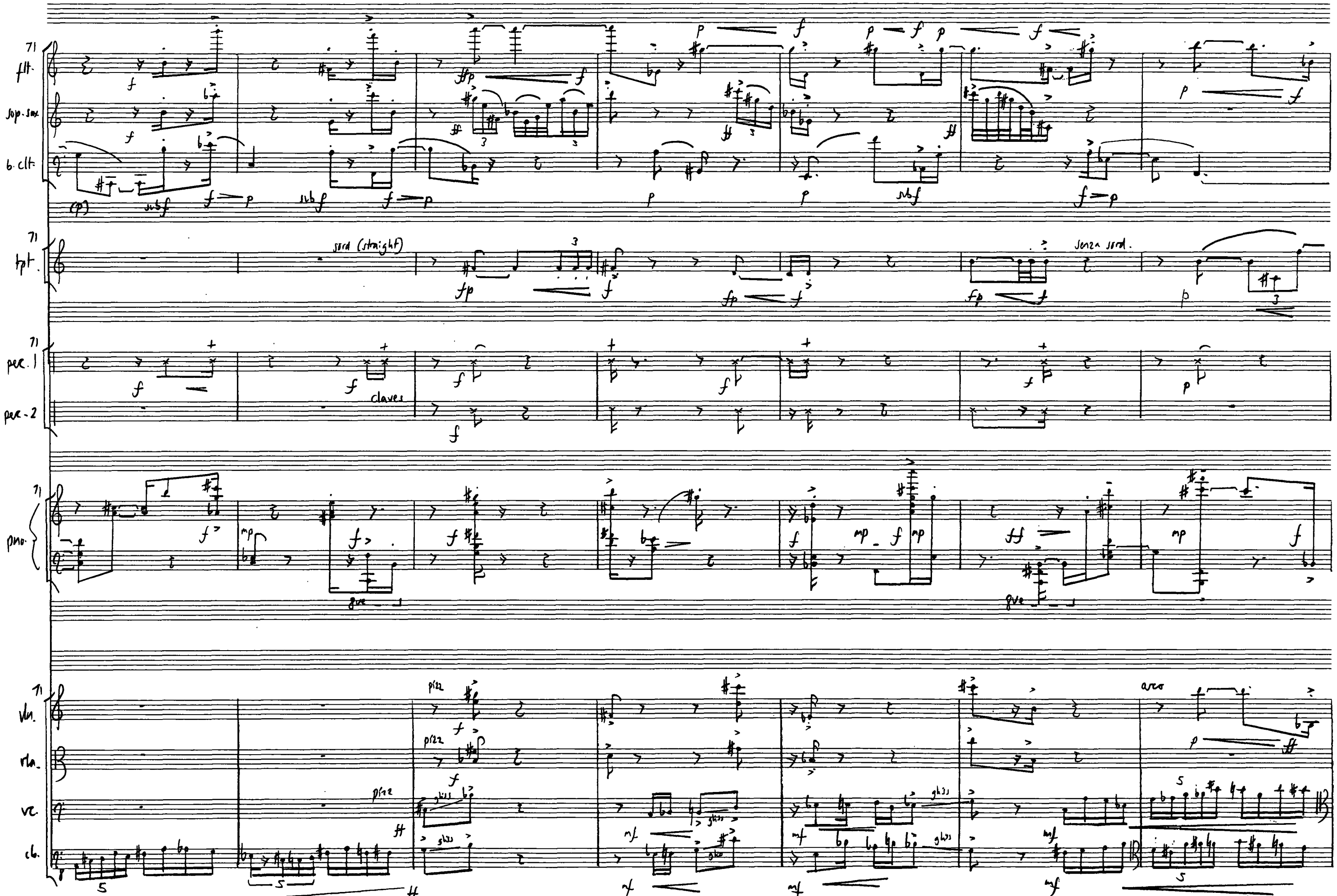

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fl
sop. sax
b. clt
tpt.
perc. 1
perc 2
pno
vln.
vla.
vc.
cb

molto staccato

claves

woodblocks

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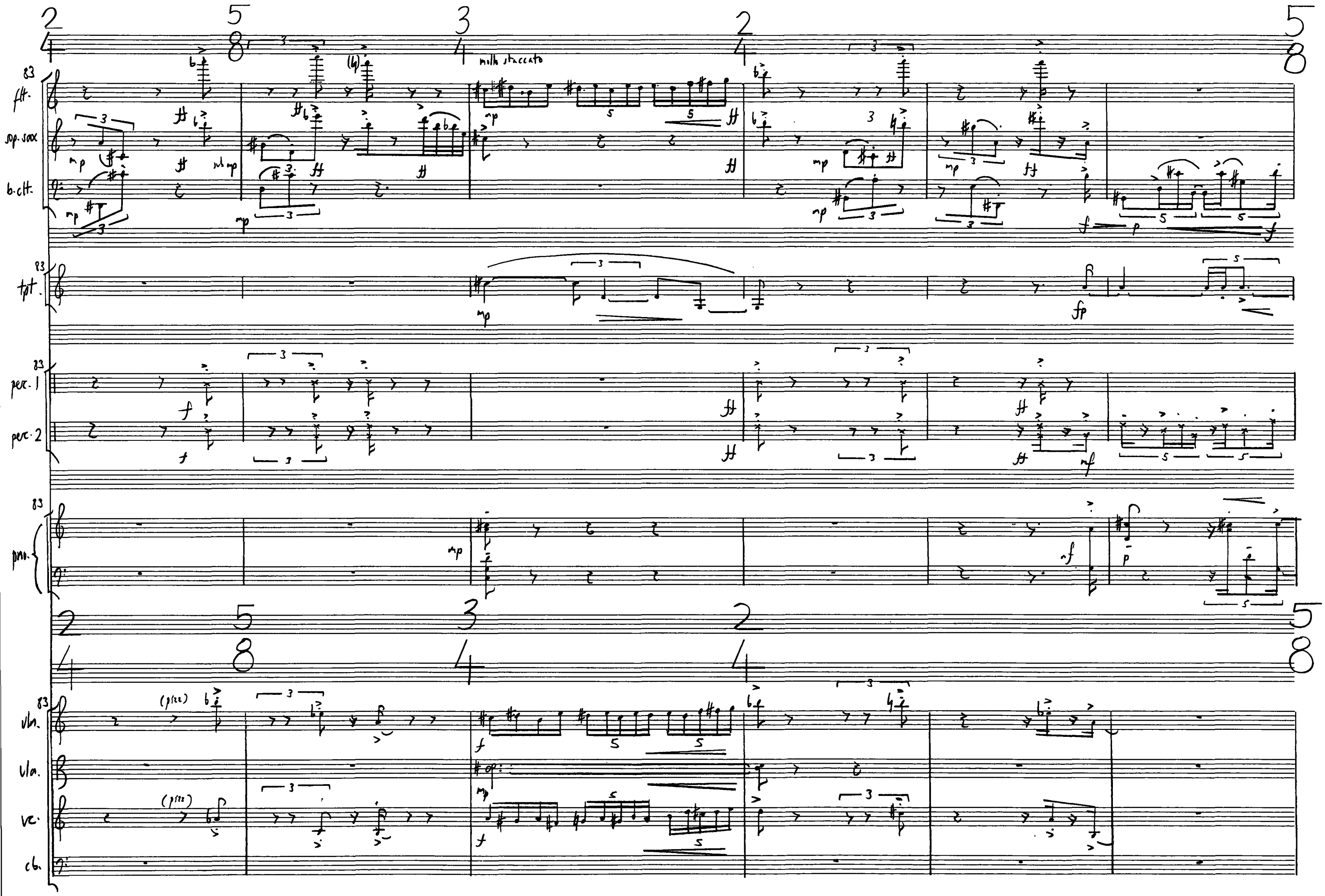

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88

89

flt.

sop. sax.

b. clt.

tpt.

trb.

per. 1

per. 2

pno.

vln.

vla.

vc.

cb.

E

sord. (straight)

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95

flt

sop. sax.

b.clt.

95

tpt.

trb.

sord. (straight)

95

(claves)

perc. 1

perc. 2

15

pno

15

vln.

vla.

vc

cb

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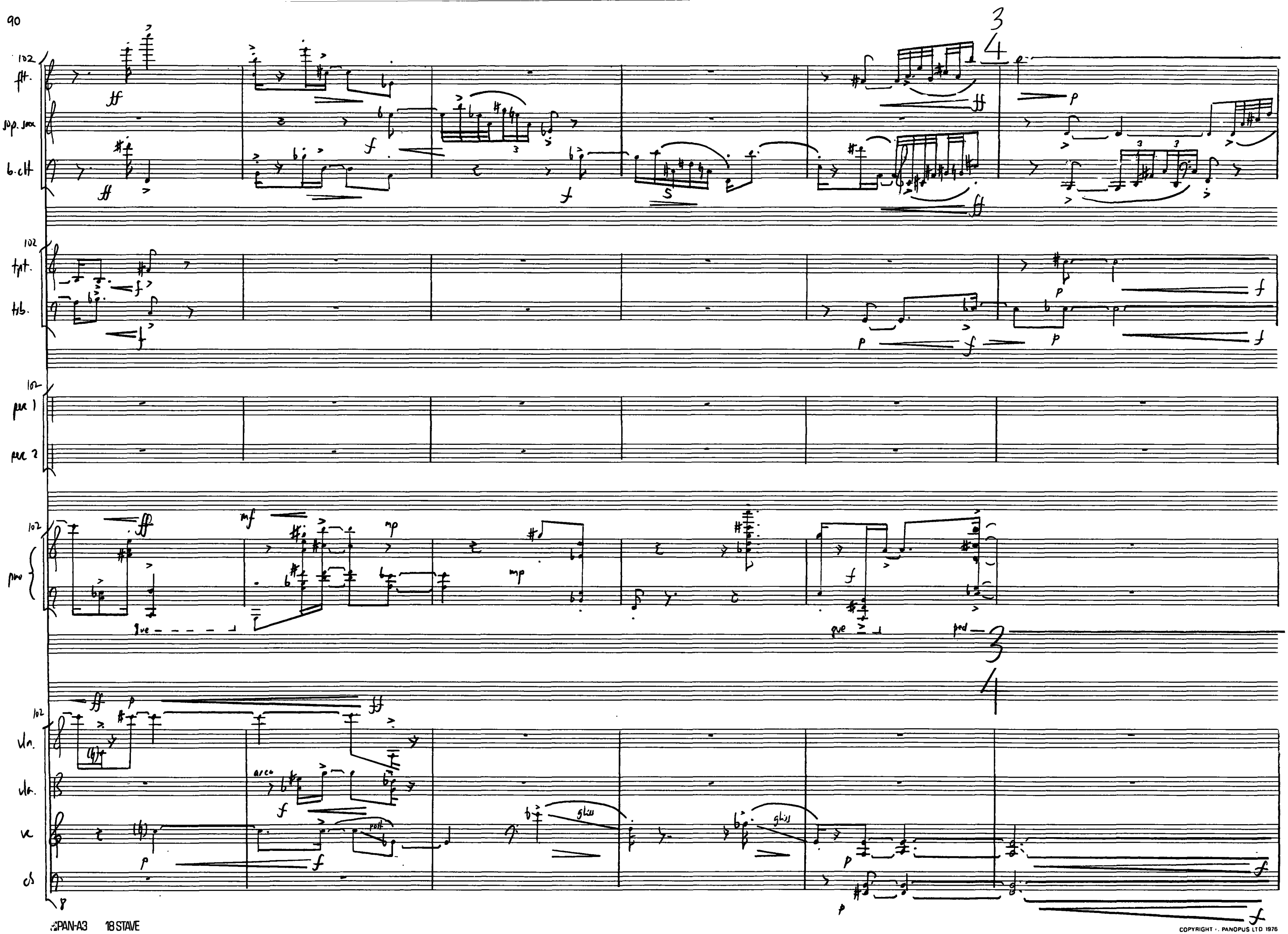

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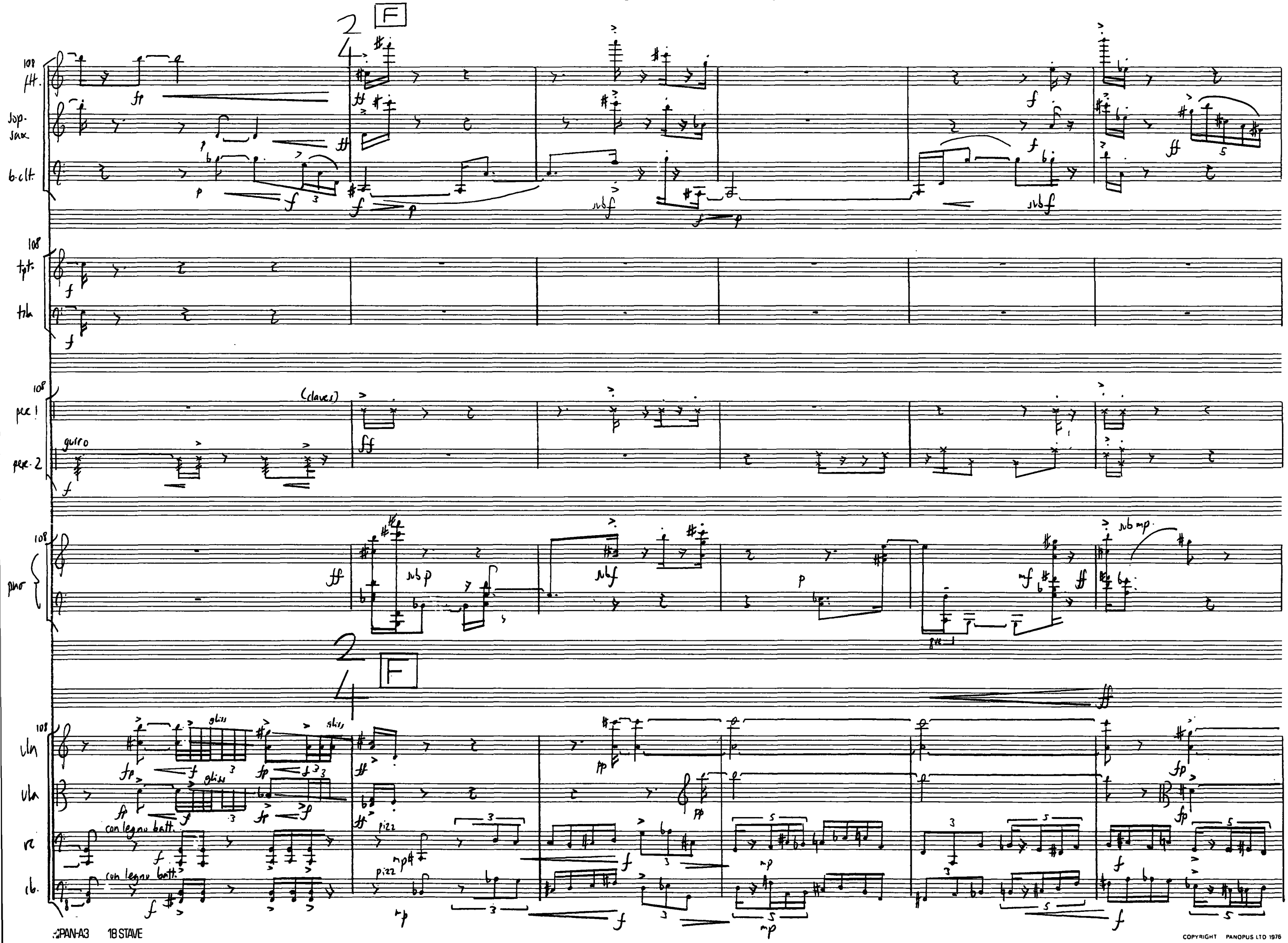

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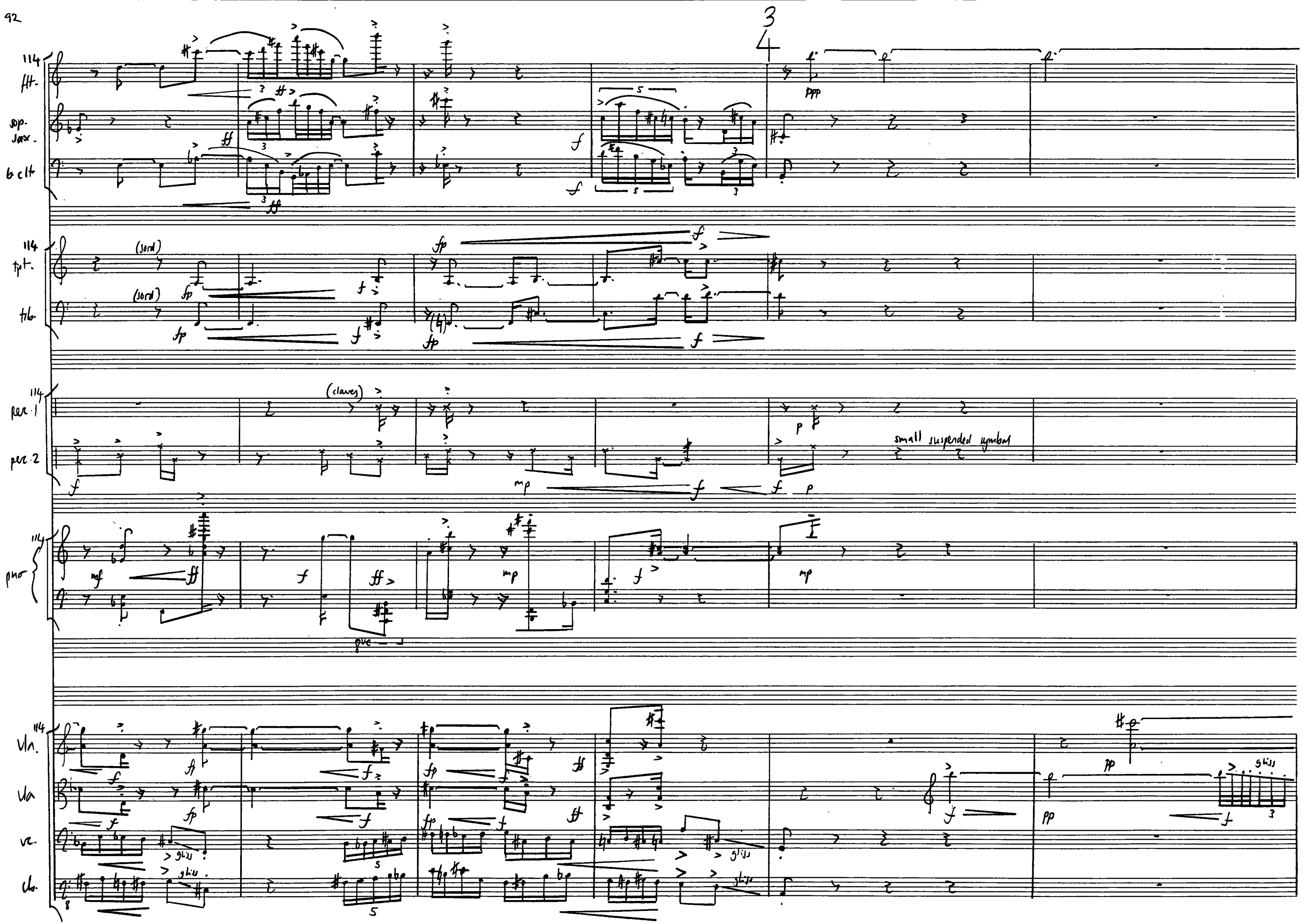

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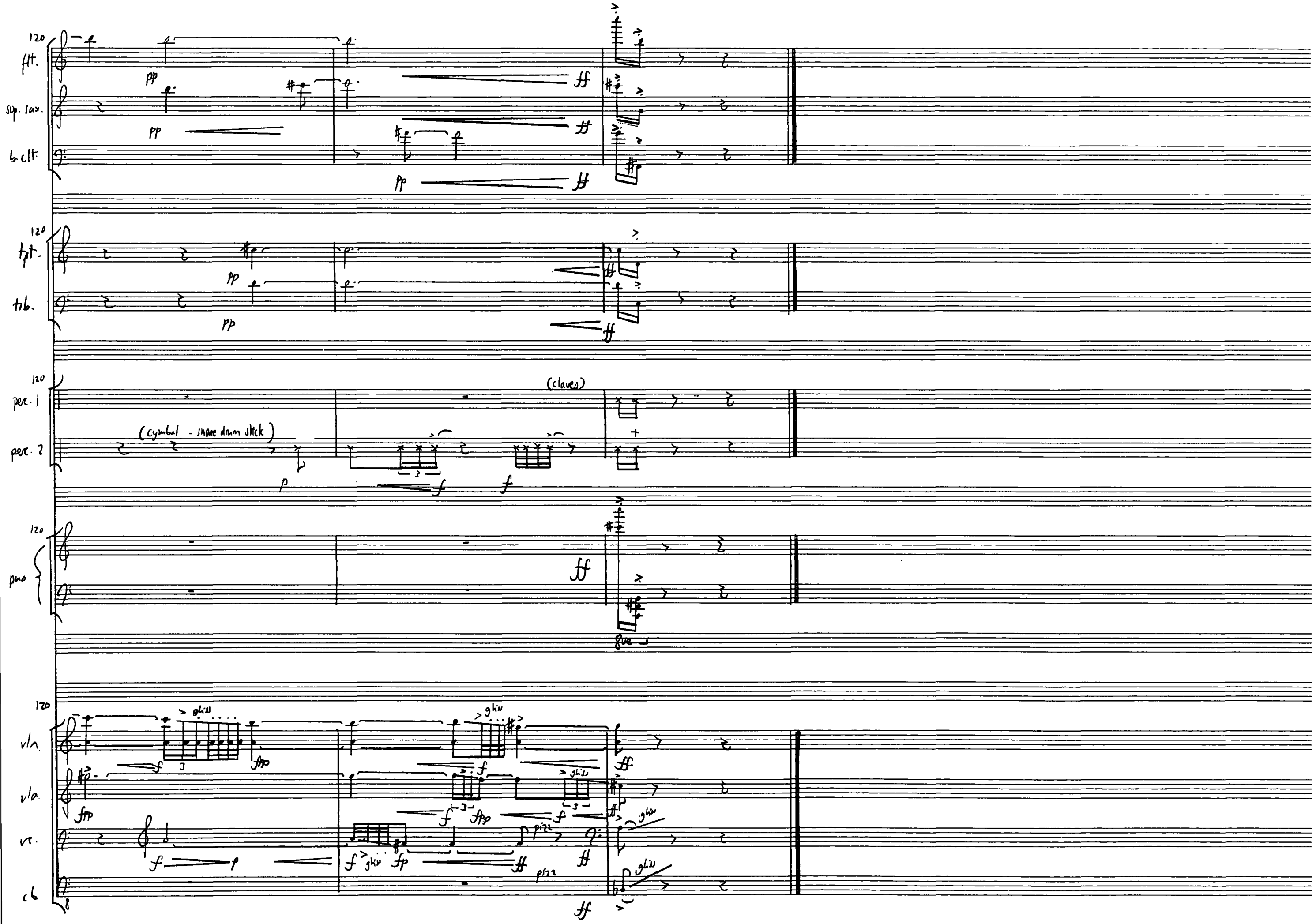

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IV

flute
alto sax.
bass clarinet
trumpet
trombone
perc 1 vibraphone
perc 2 tubular bells
piano
violin
viola
violoncello
double bass

(motor off)

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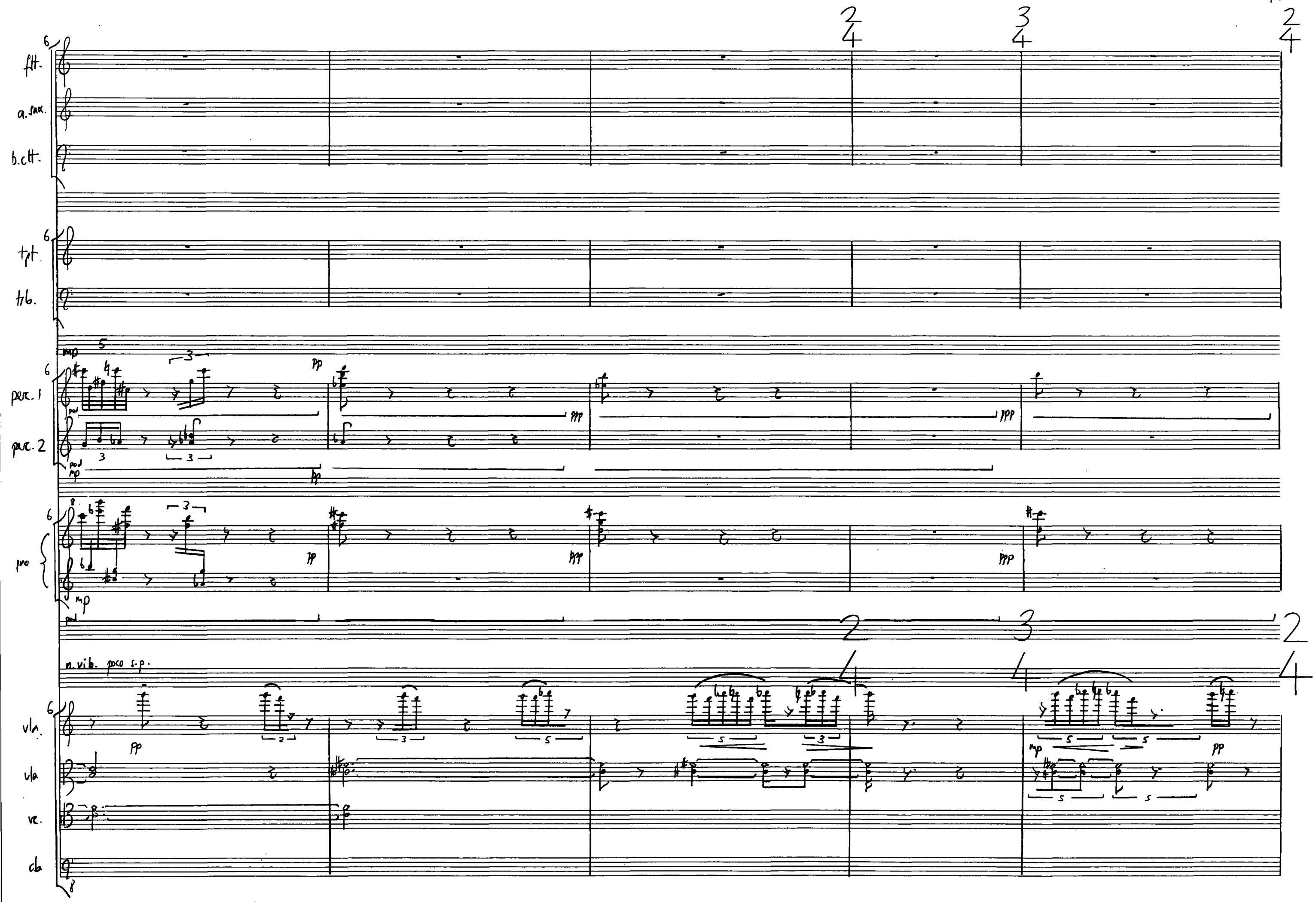

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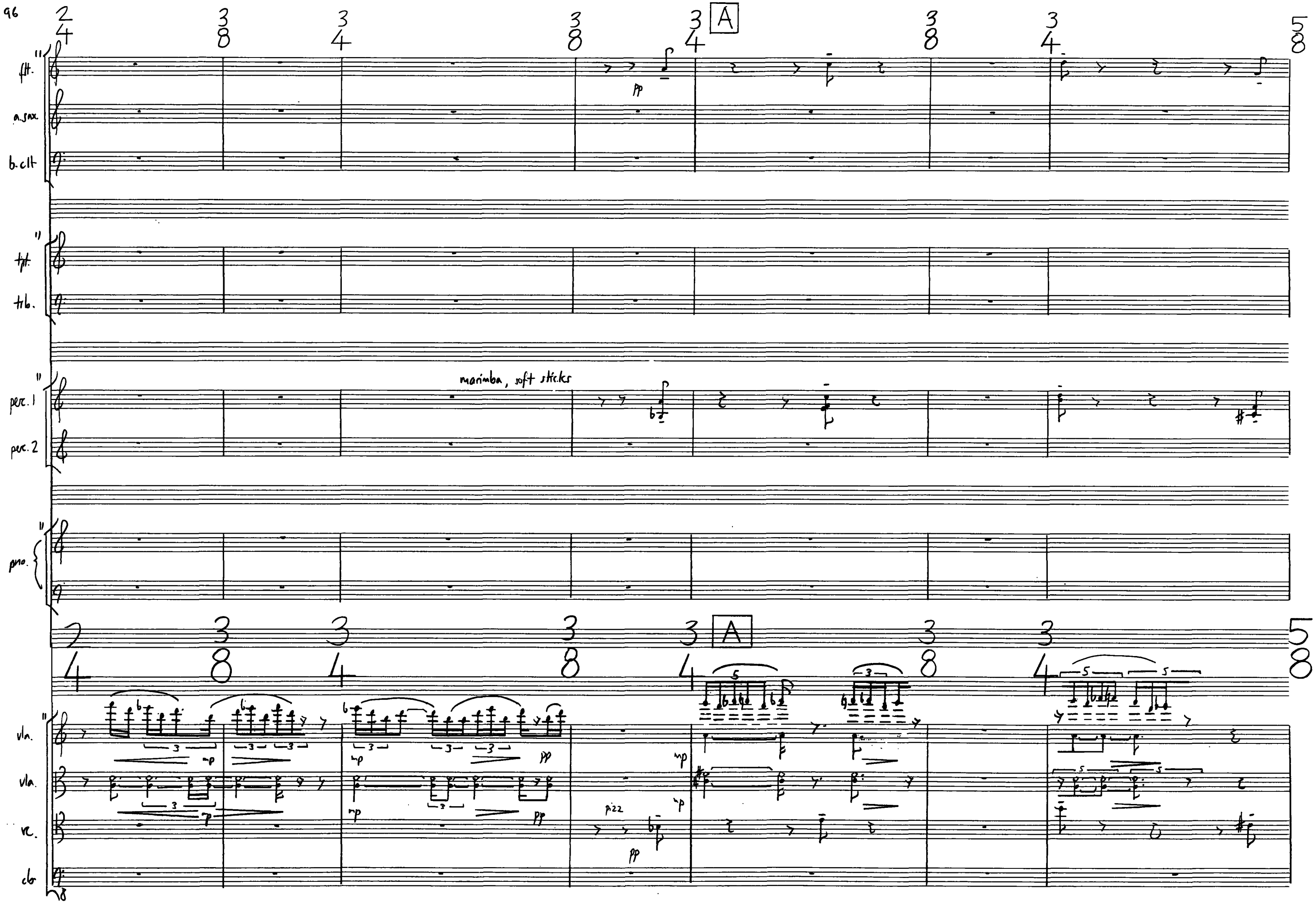

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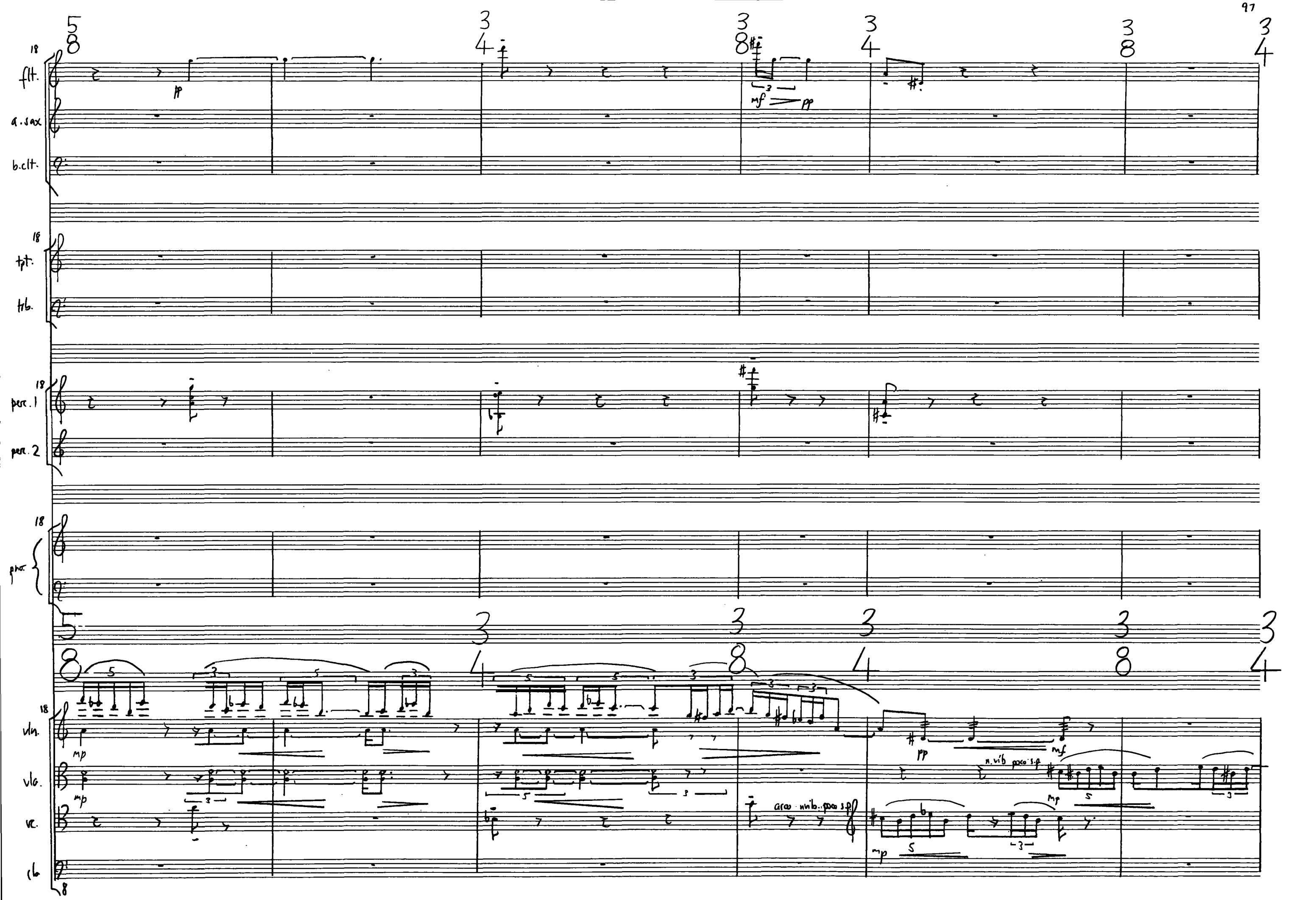

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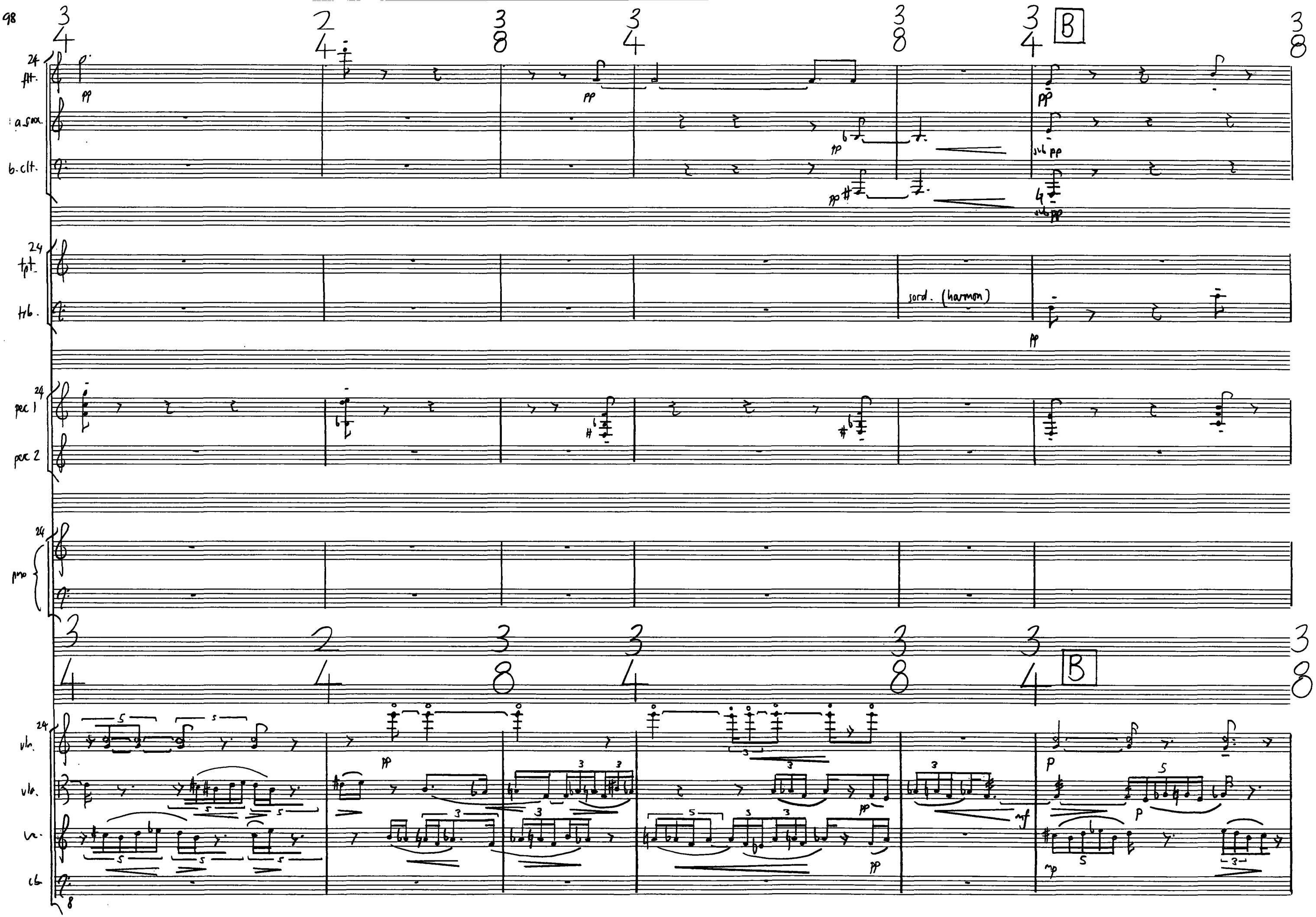

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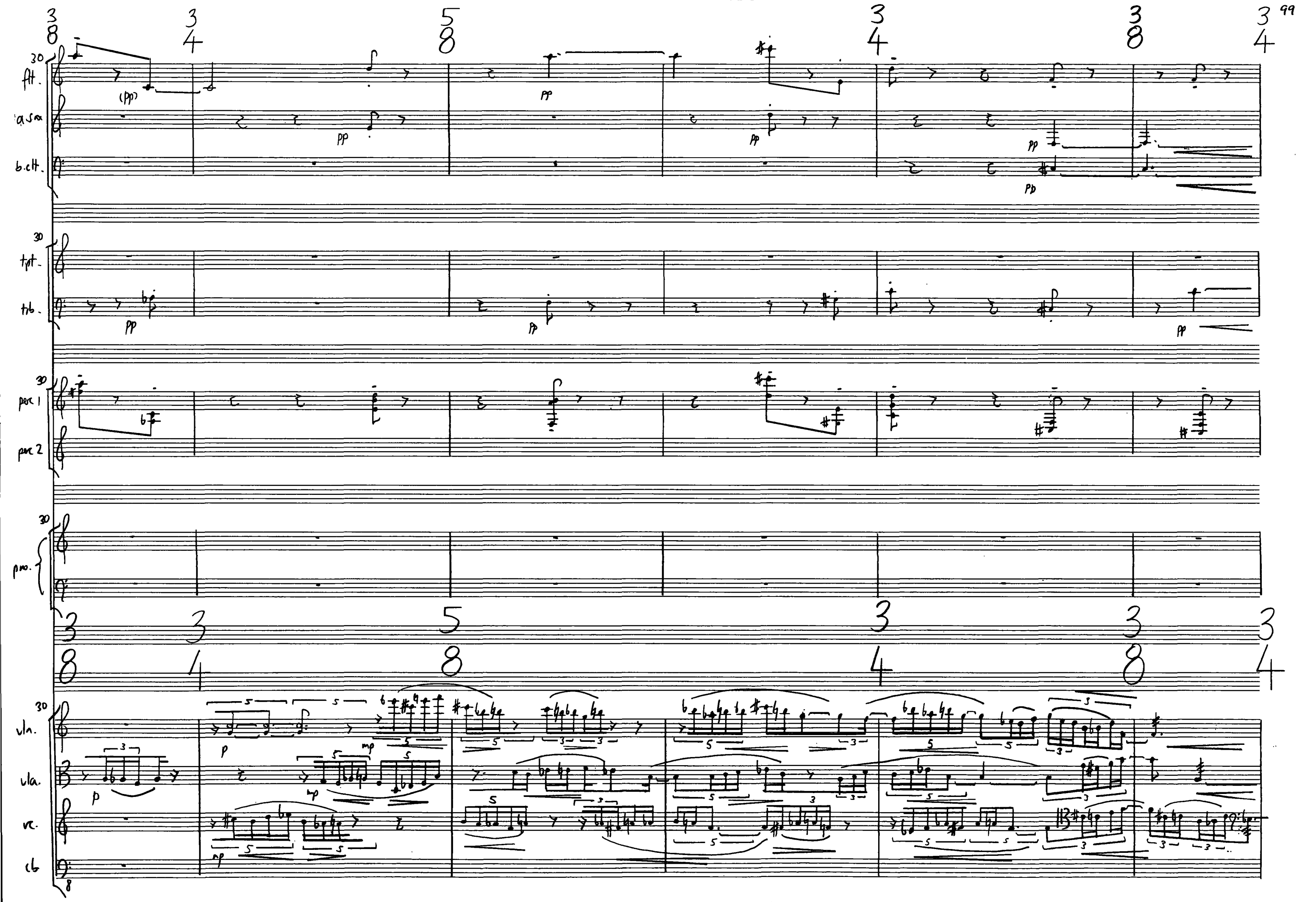

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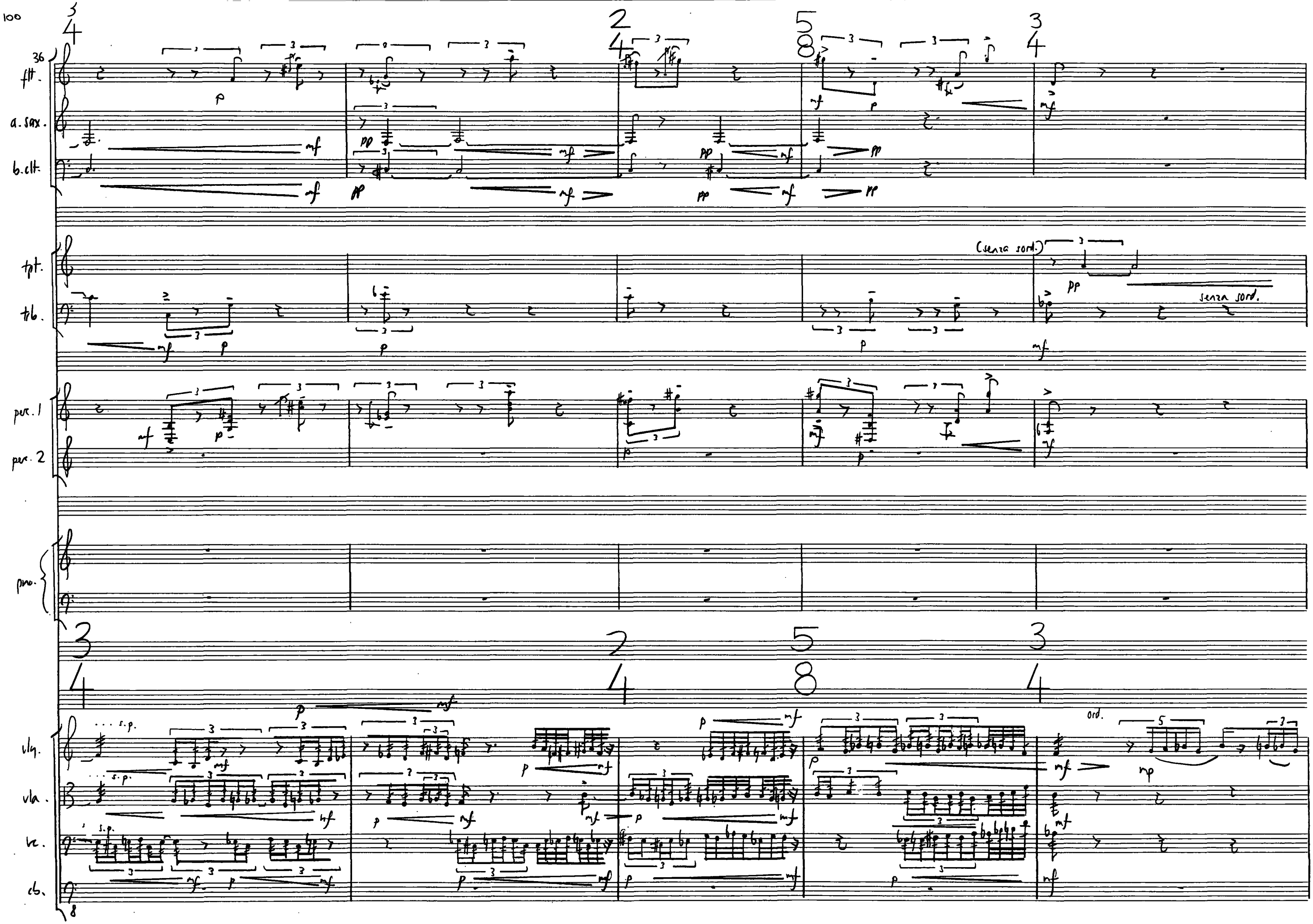

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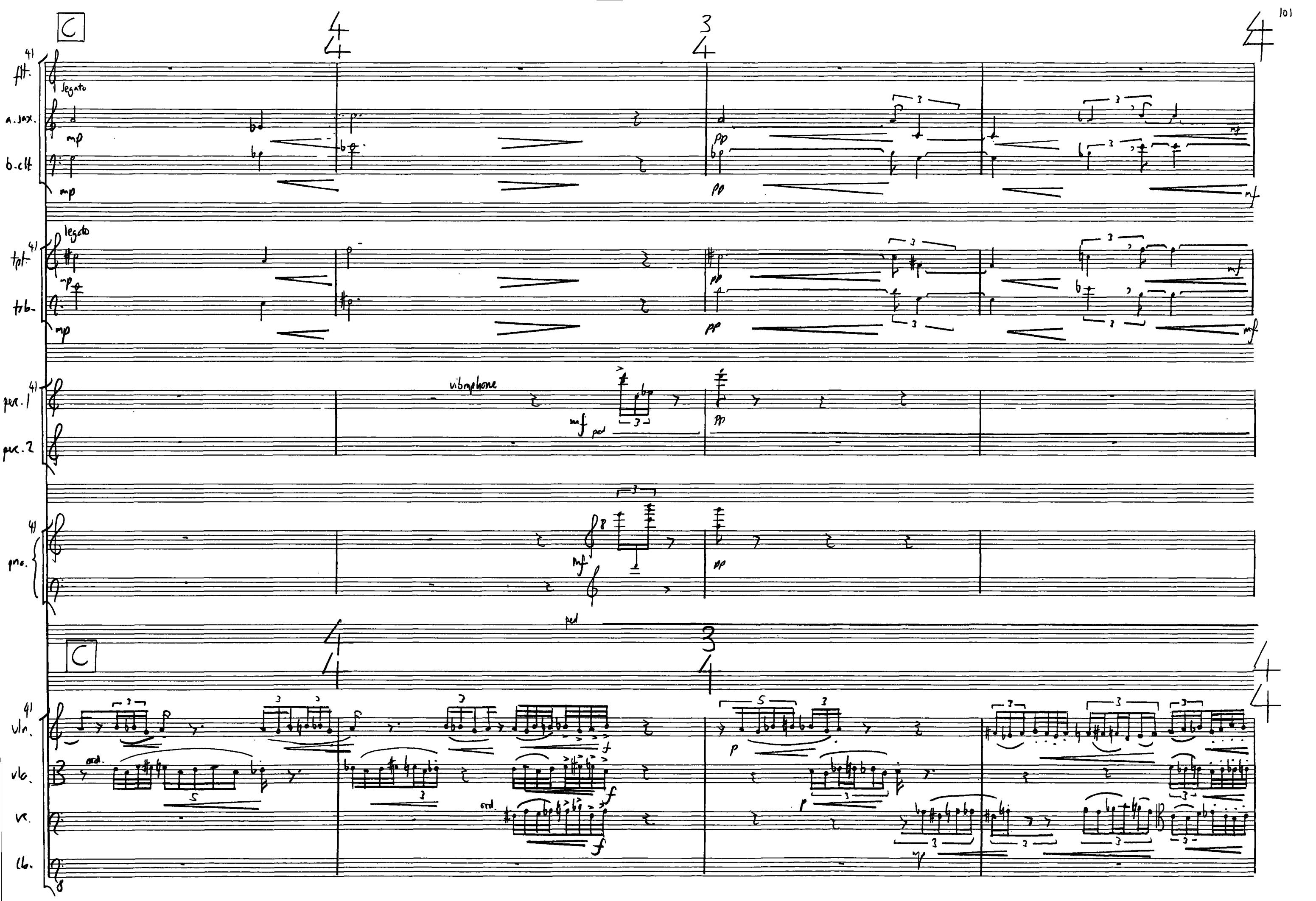

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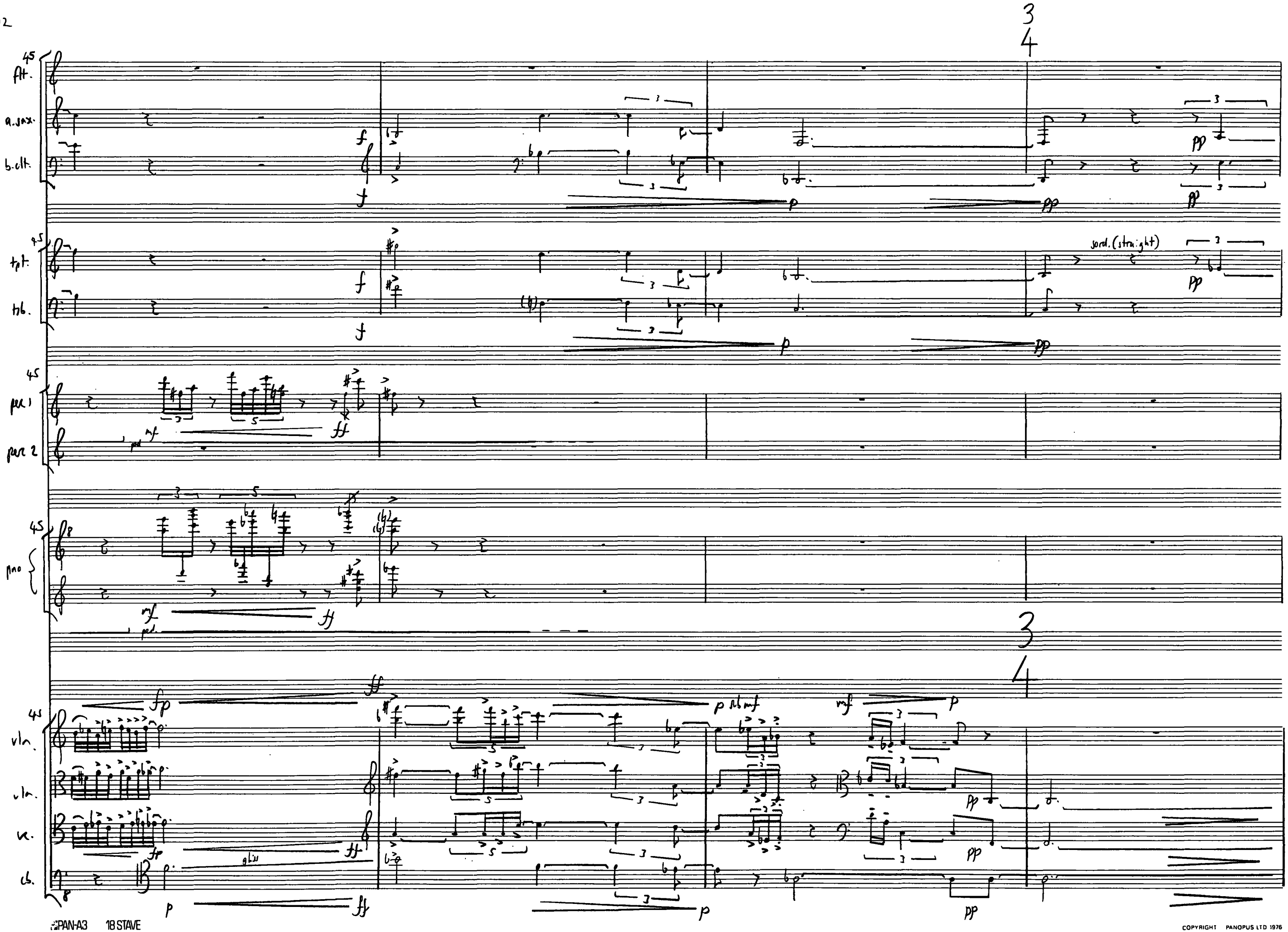

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49

flt.

a.sax.

b.clt.

49

tpt.

sord. (straight)

tb.

49

per.1

vibraphone (soft sticks)

per.2

tubular bells (soft hammers)

49

pno.

(8)

49

vln.

vla.

vc.

cb.

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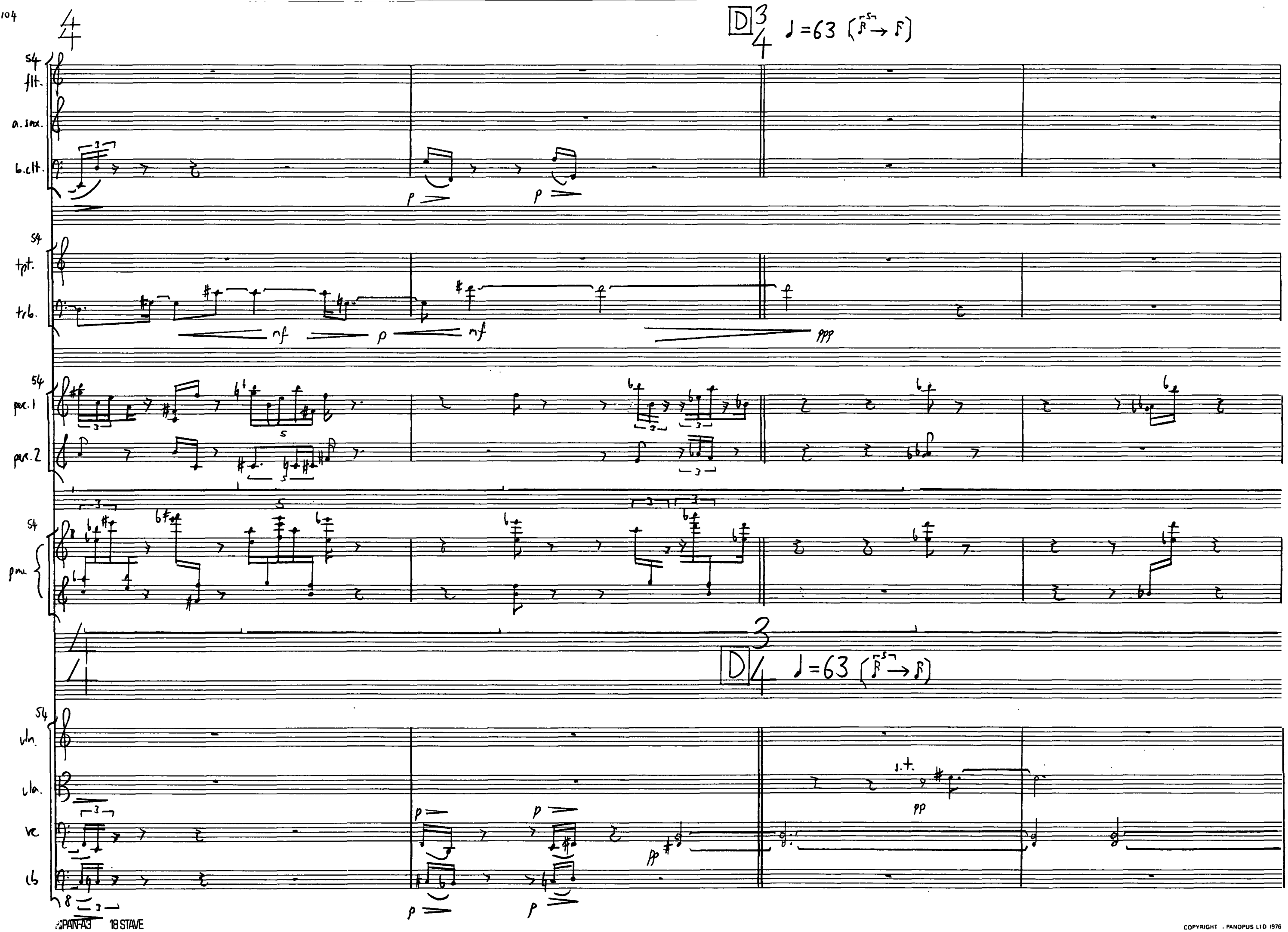

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perc. 1

(vibraphone) arco

vln.

(s.t.)

vla.

vc.

cb.

plucked

Sempre ped.

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E

n.vib. distantly

68

fl.

b.cl.

ppp

mp

pp

68

perc 1.

p

p

68

pno.

E

68

vln.

vla.

vc.

cb.

mp

p sempre

p sempre

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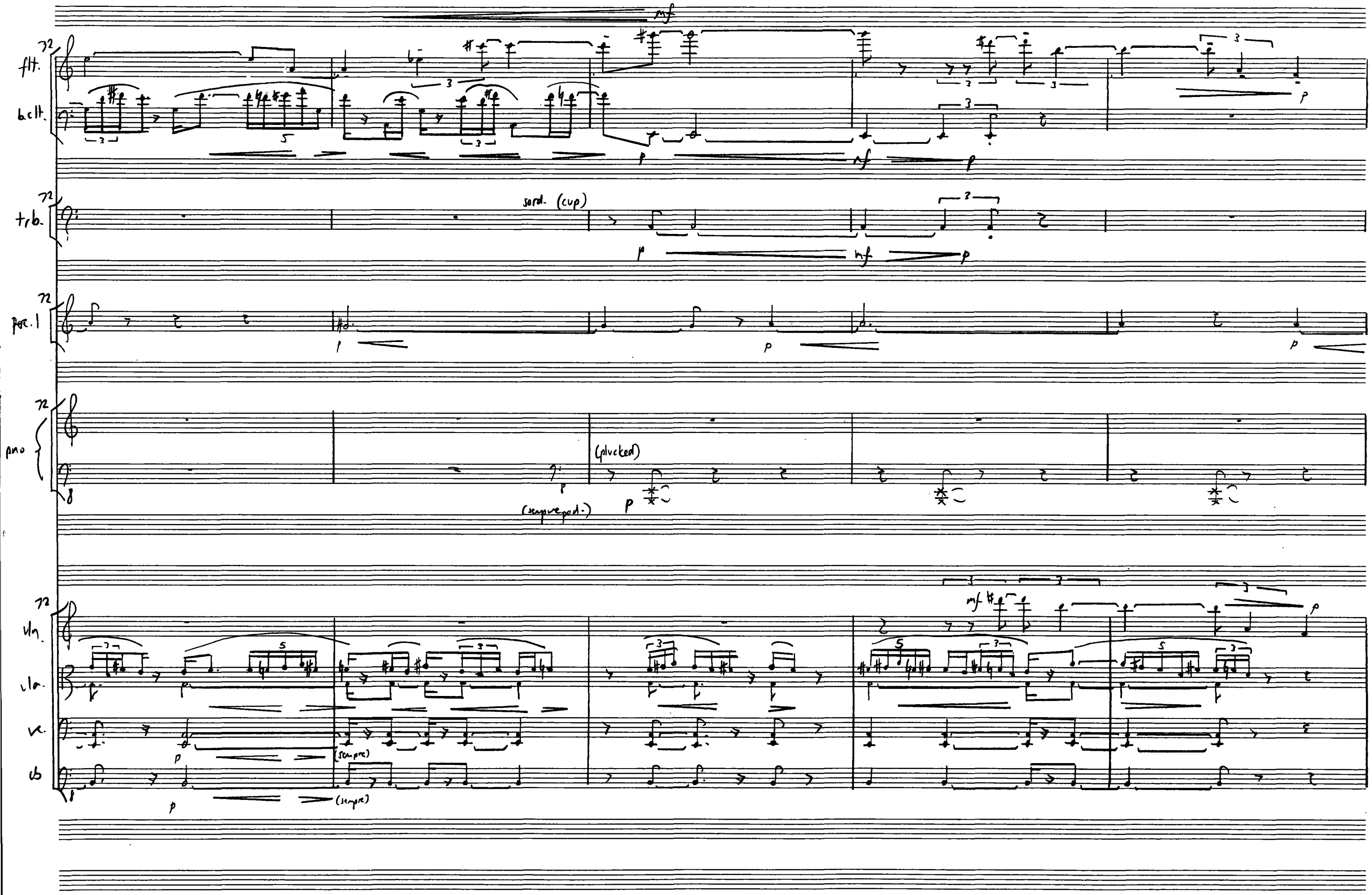

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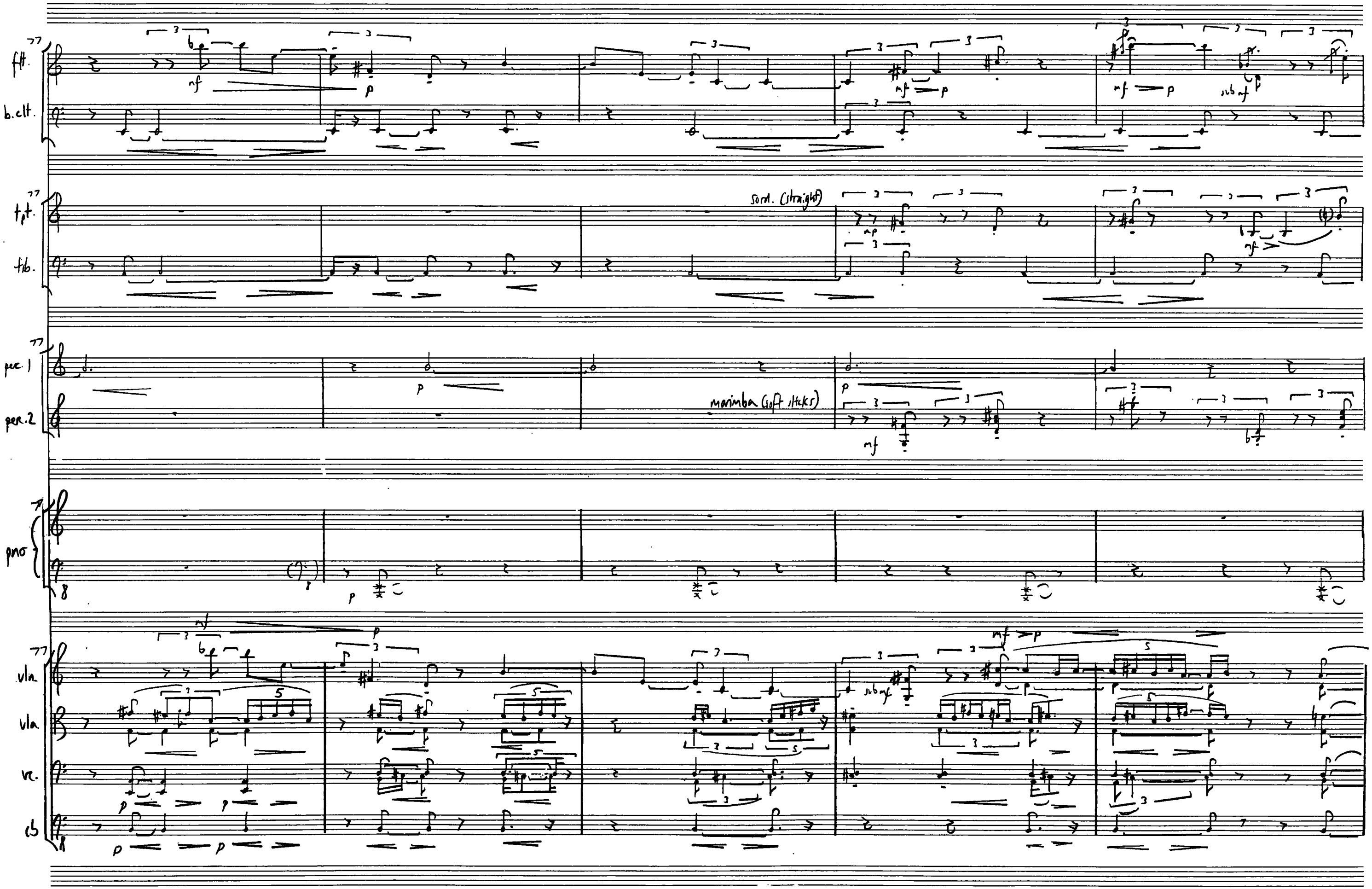

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82

flt.

b.clt.

82

tpt.

tbn.

senza sord.

senza sord.

82

large suspended cymbal soft beater

per.1

per.2

82

pno

(plucked)

sempre ped

ord.

(sempre ped)

82

vln.

vla.

vc.

cb.

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F

fl.

a-sax.

b.cl.

tpt.

tbn.

perc 1

perc 2

pno

(ord.)

F

vln

vla.

vc.

cb.

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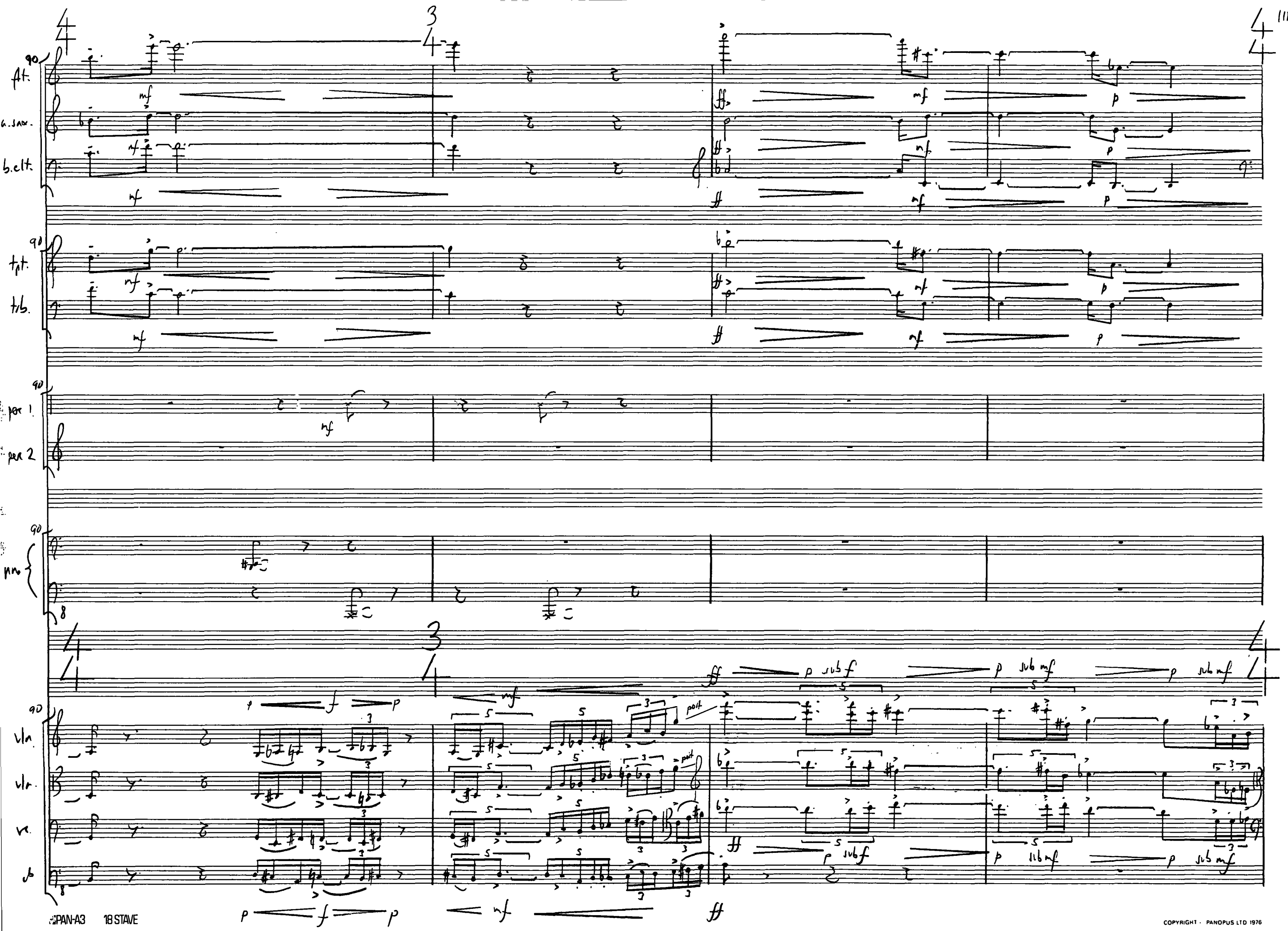

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fl.
a.sax
b.clt.
tpt.
tbn.
perc1
perc2
pno
vln.
vla.
vc.
cb.

tamtam (hard stick)

sord. (straight)

sord.

(sempre ped)

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98

fl.

a.sax

b.cl.

98

tpt.

t.b.

98

perc 1

perc 2

18

perc

98

vln.

vla.

vc.

cb.

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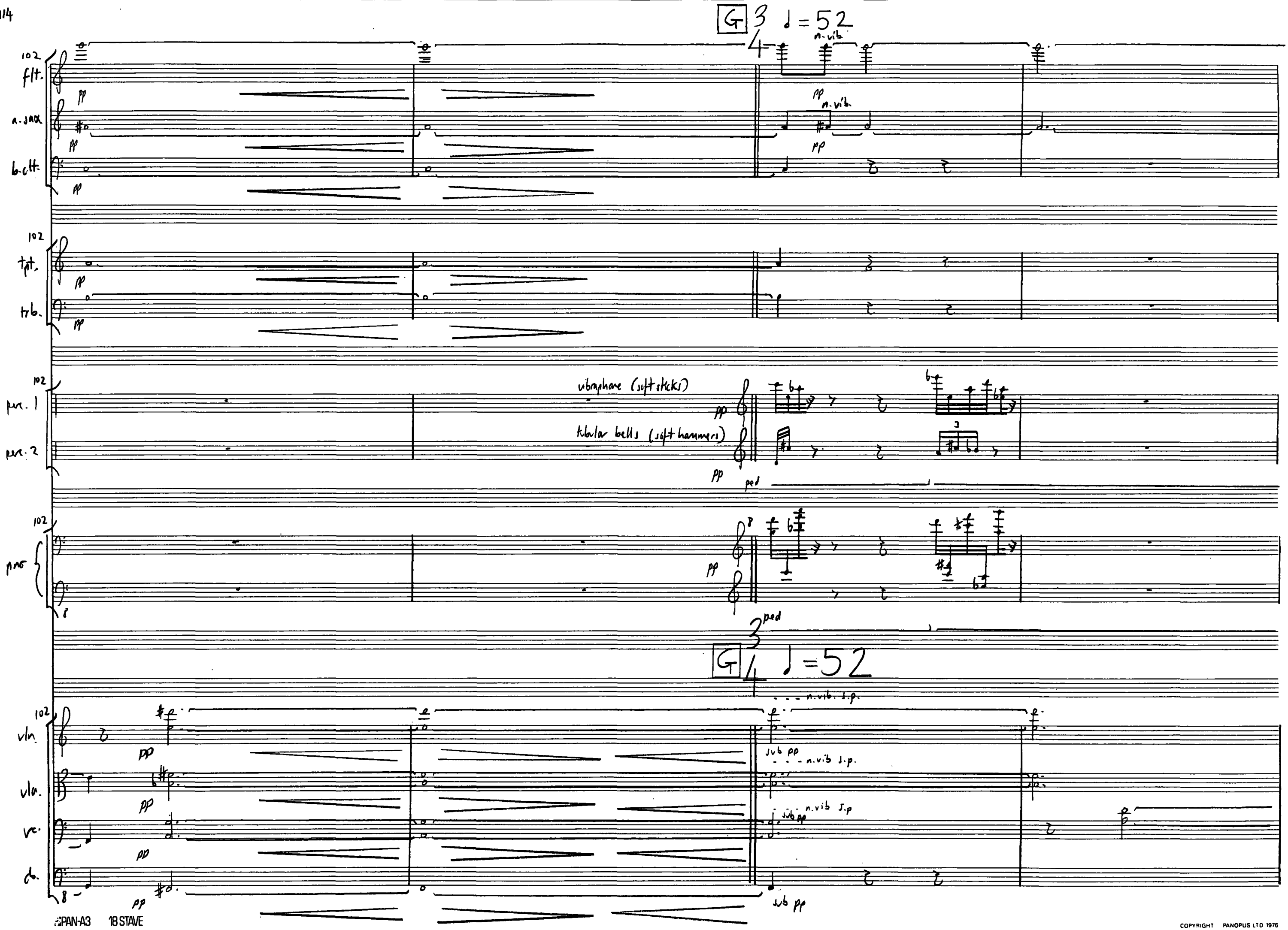

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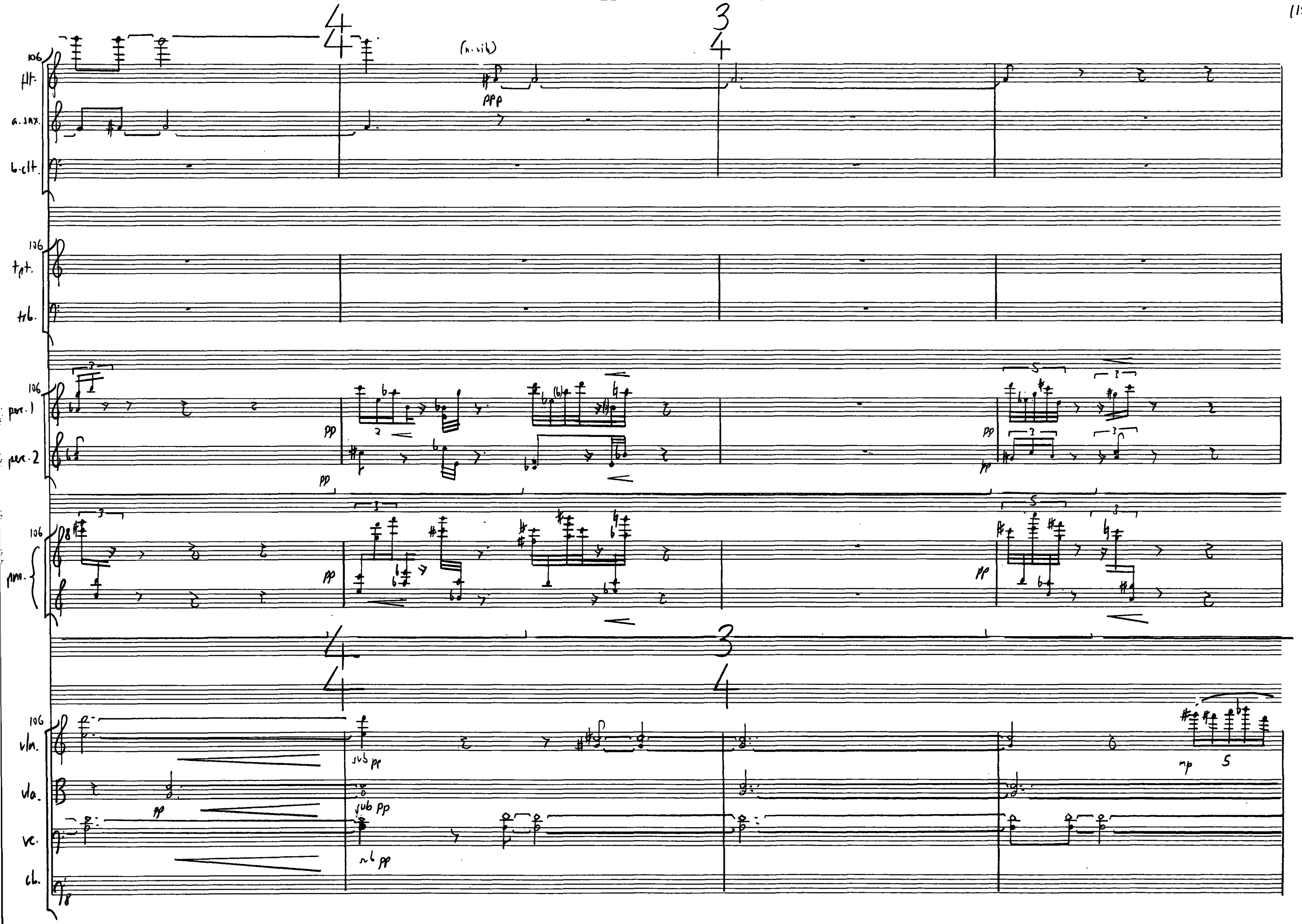

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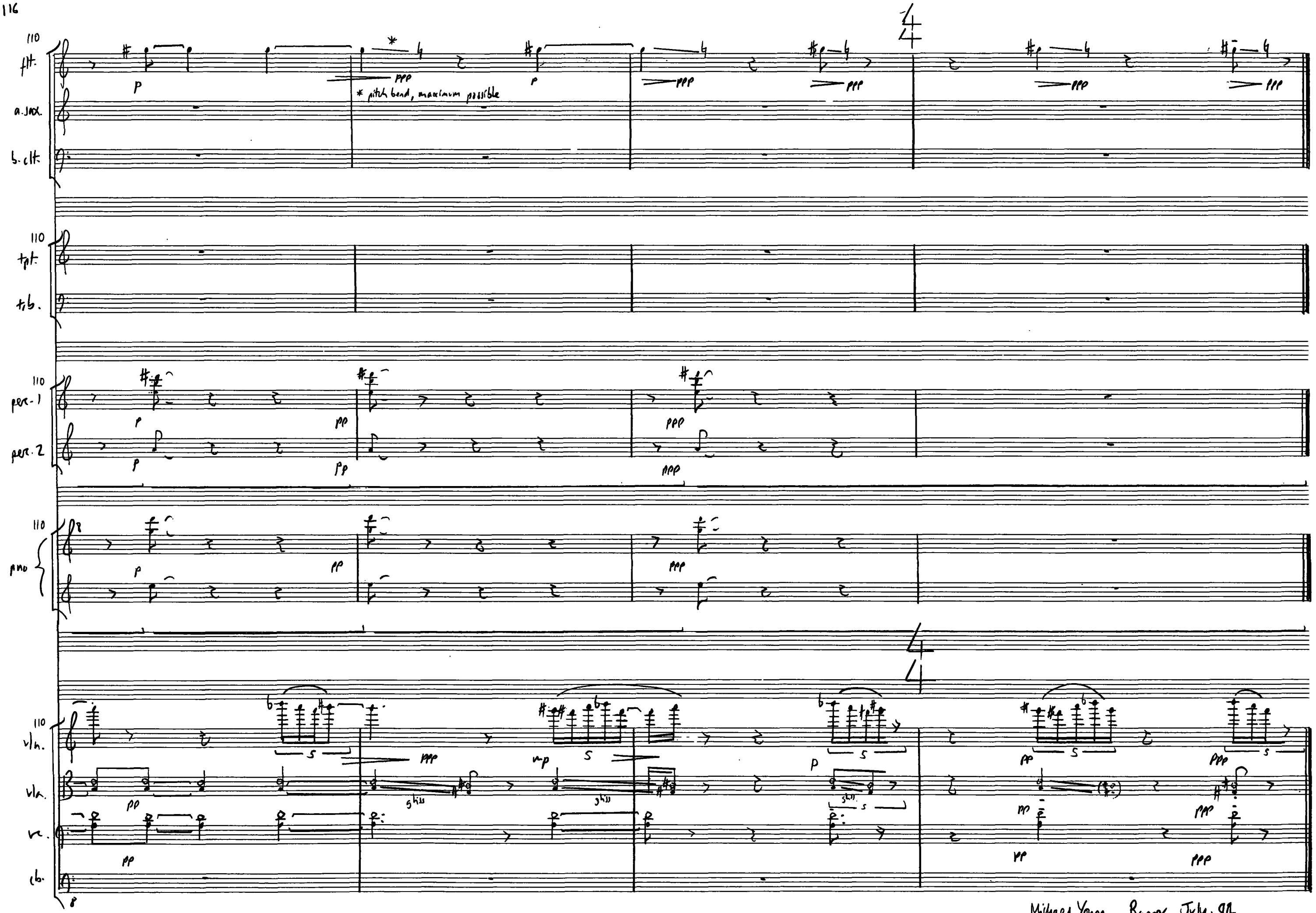

Michael Young Bangor July, 94

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Instrumentation

flute 1
flute 2/piccolo
oboe 1
oboe 2/cor anglais
clarinet 1
clarinet 2/bass clarinet
2 bassoons

2 horns
2 trumpets
2 trombones

percussion 1: marimba, vibraphone, large cymbal
percussion 2: small cymbal, 5 wood blocks, claves, tambourine, bass drum

strings

all instruments notated in C

... Strange noises were heard
.... bits of a tune
Coming in on loud weather...

It comes off the bow gravely,
Rephrases itself into the air.

(from **"The Given Note"** by Seamus Heaney)

♩=66

2 Flutes
2 Oboes
Clarinet
Bass Clarinet
2 Bassoons
2 Horns
2 Trumpets
2 Tromboner
Marimba
Percussion
Violin I
Violin II
Viola
Cello
Double bass

con sord.
triangle
pizz
div.
arco (div.)
non div.
uni

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7

Flts

Obs

Clt

B. Clt

Bsns

Hns

Tpts

Trbs

Mba

Perc

Solo

Vl I

Vl II

Vla

Vc

Db

2.

ppp

ppp

to vibraphone

pizz (div.)

arco (div.)

esp

poco

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A molto accel

Fl I

Fl II

Ob I

Ob II

Cl

B. Cl

Bsns

Hns

(con sord.)

Vib

motor off

Perc.

small cymbal (med. stick)

to marimba

Solo Vl I

(Solo)

Vl II

Vla

Vc

Db

pizz (non div.)

pizz (div.)

pizz

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(♩=96) rall - - - - - - - - - atempo ♩=66

rall - - - - - - - - - - - - -

15

Fl I

Fl II

Ob I

Ob II

Cl I

B. Cl

Bsns

Hns

Mba.

Perc.

3(♩=96) - - - - - atempo ♩=66

rall

15

Vl I

Vl II

Vla

Vc

Db

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♩=42 (♪=84)

B

20

Fls

Obs

Cls

B. Cl

Bsns

pp

mf

p

mp

2/4 3/8 6/8 2/8 6/8 5/8 6/8

Hns

Tpts

Tbns

con sord.

1.

p

con sord.

1.

pp

poco

Mba

soft sticks

pp

Perc.

2/4 ♩=42 (♪=84) 3/8 6/8 2/8 6/8 5/8 6/8

20

Vll

Vlll

Vla

Vc

Db

pp

mf

p

div.

pizz

arco

(pizz)

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27

22

Flts

Obs

Clt

B.Clt

Bsns

Hns

Trbs

Mba

27

Vl.I Solo

Vl.I

Vl.II Solo

Vl.II

Vla

Vc

Db

(sord.)

(arco)

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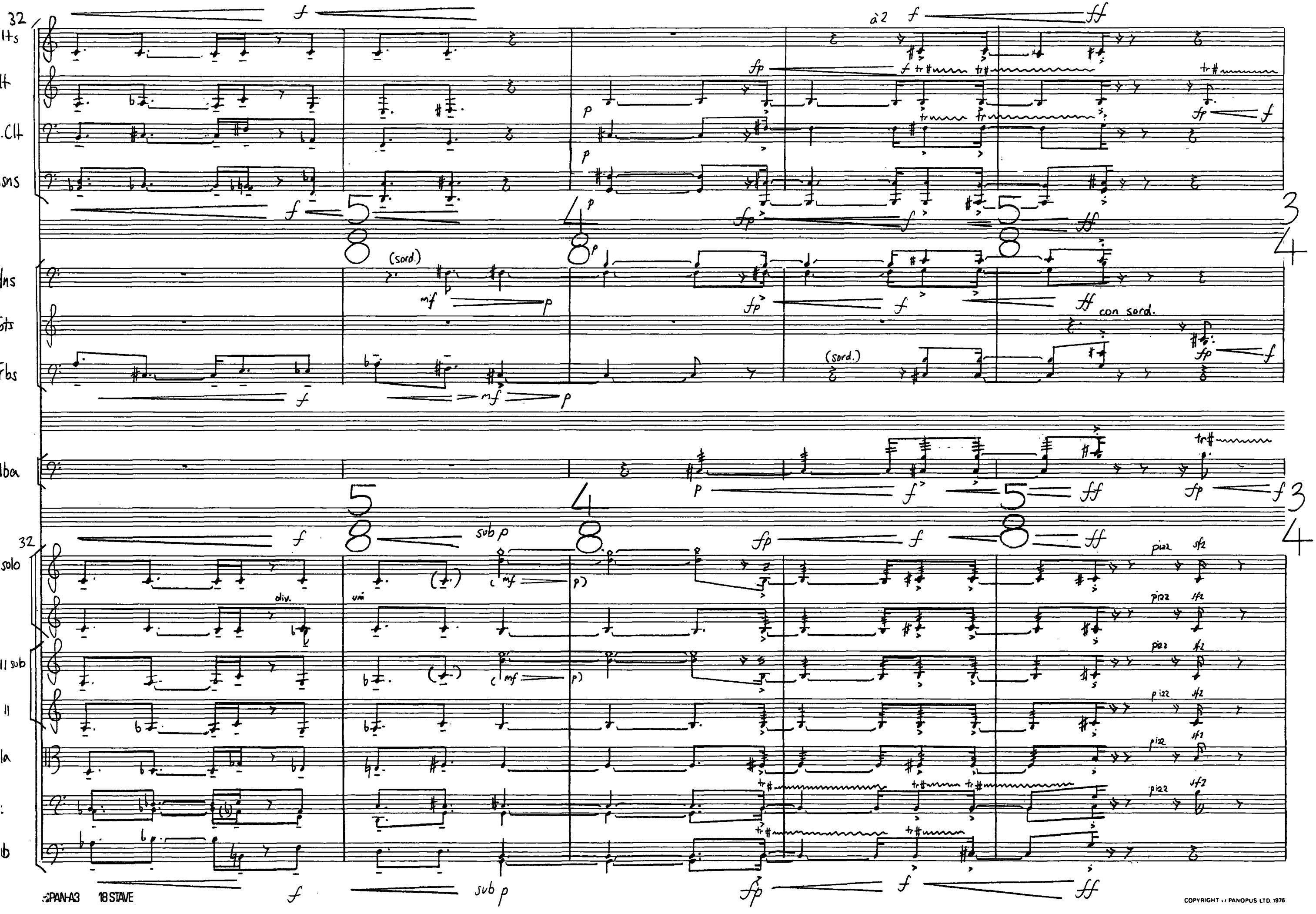

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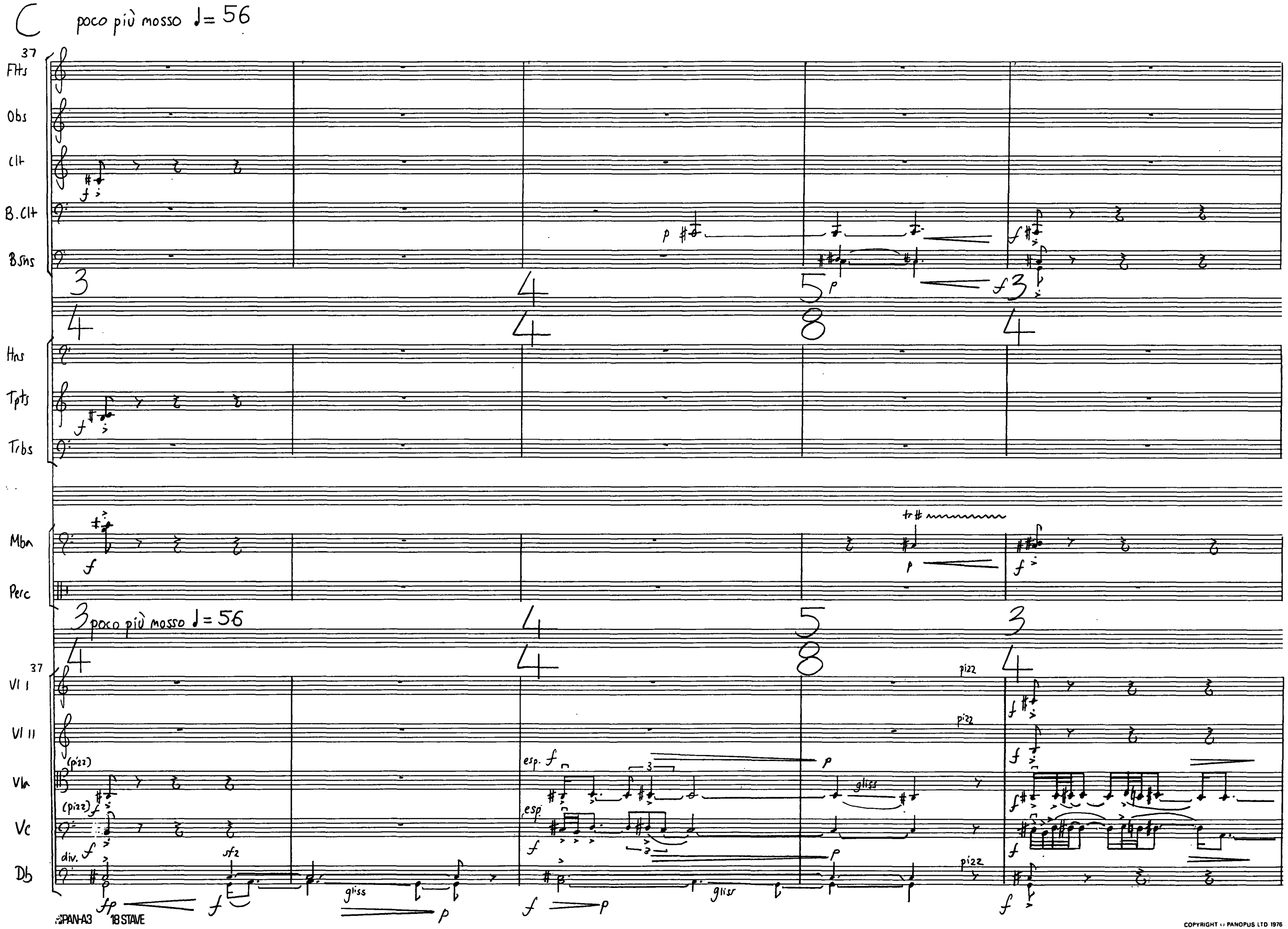

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42

Fl 1,2

Obs

Cl+

B.Cl+

Bsns

Hns

Tpts

Trbs

Mba

Perc

42

Vl I

Vl II

Vla

Vc

Db

sord. I.

soli

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D poco più mosso ♩ = 60

46

Flts

Obs

Clt

B.Clt

Bsns

Hns

Tpts

Trbs

Mba

Vl I

Vl II

Vla

Vc

Db

à 2

(sord.)

1.

(soli)

pizz

poco più mosso ♩ = 60

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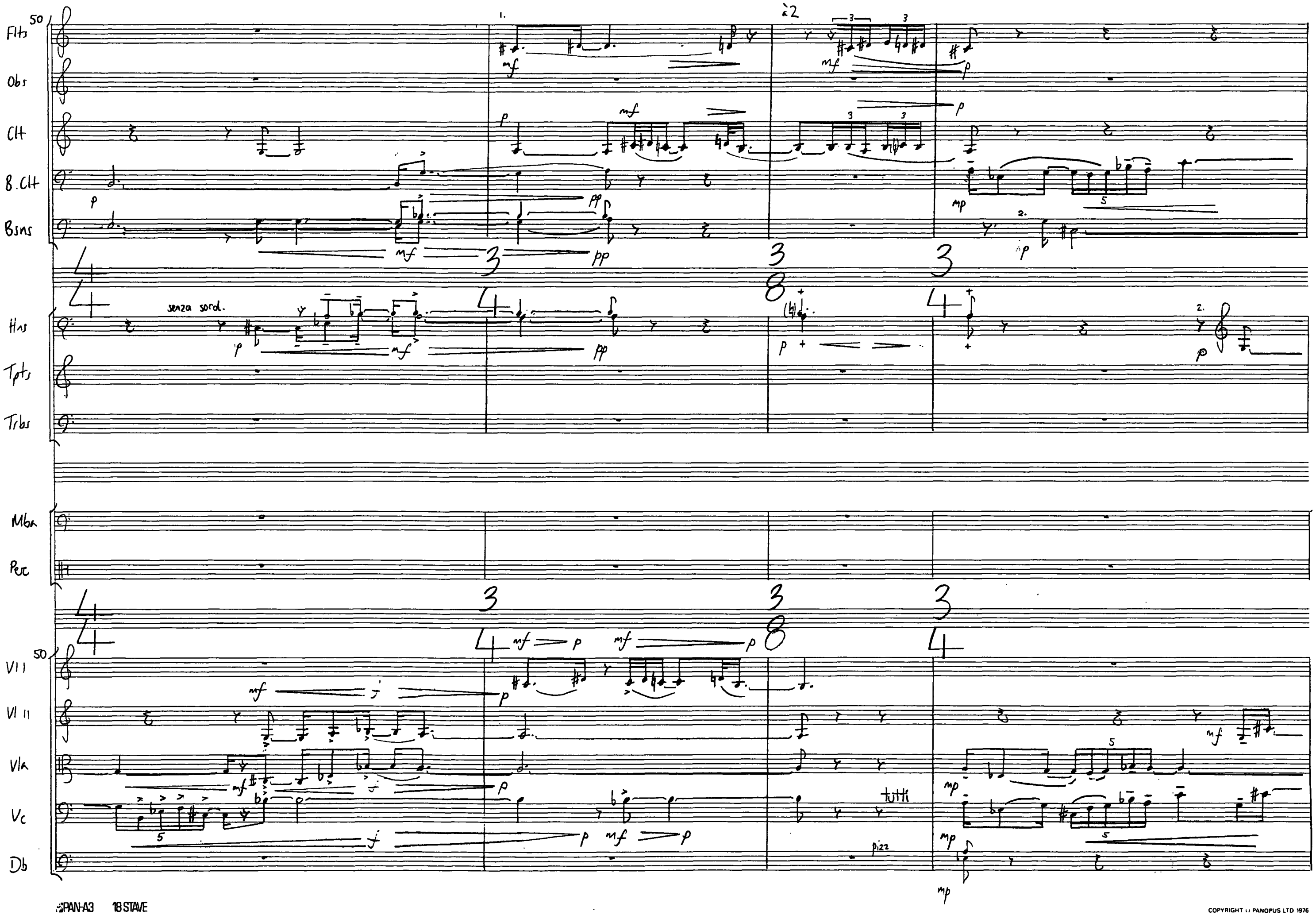

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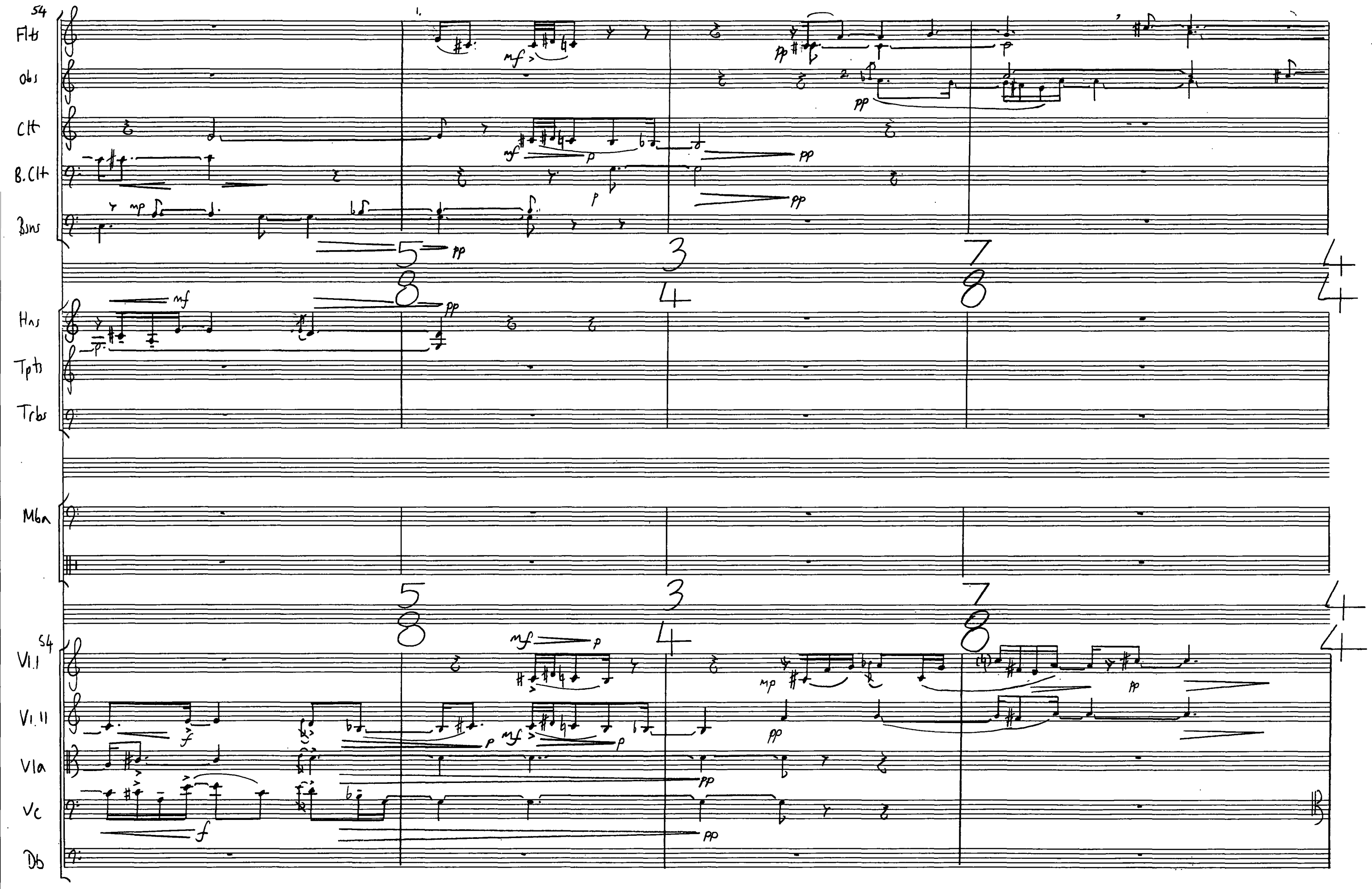

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E poco più mosso ♩=63

58

Flts

Obs

Clt

B.Clt

Bsns

Hns

Tpts

Trbs

Mba

Perc.

poco più mosso ♩=63

58

Vl I

Vl II

Vla

Vc

Db

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62

ancora più mosso ♩=69

Flts

Obs

Cl♭

B.Cl♭

Bsns

Hns

Tpts

Trbs

Mba

Perc.

62

ancora più mosso ♩=69

Vl I

Vl II

Vla

Vc

Db

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66

Fl 1,2

Ob 1,2

Cl 1,2

B.Cl

Bsns

Hns

Tpts

Trbs

più mosso ♩=92

Mba

Perc.

small cymbal

hard sticks

66

Vl I

Vl II

Vla

Vc

Db

più mosso ♩=92

SPAN-A3 18 STAVE

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70

Fl1s

Obs

Clt

B.Clt

Bsns

Hns

con sord

Tpts

Trbs

Mba

Perc.

(small cymbal)

Vl I

Vl II

Vla

Vc

Db

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74

Fl 1s

Obs

Cl 1

B. Cl 1

Bsns

Hns

Tpts

Trbs

Mba

Perc.

74

Vl I

Vl II

Vla

Vc

Db

(pizz)

non div.

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G

78

Fls

Obs

Cls

B.Cl

Bsns

3/4

Hns

Tpts

Tbns

con sord.

Mba

Perc.

3/4

78

Vl I

Vl II

Vla

Vc

Db

(pizz)

(pizz)

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82

Flts

Obs

Cl

B.Cl

Bsns

Hrns

Tpts

Trbs

Tba

Perc.

82

Vl I

Vl II

Vla

Vc

Db

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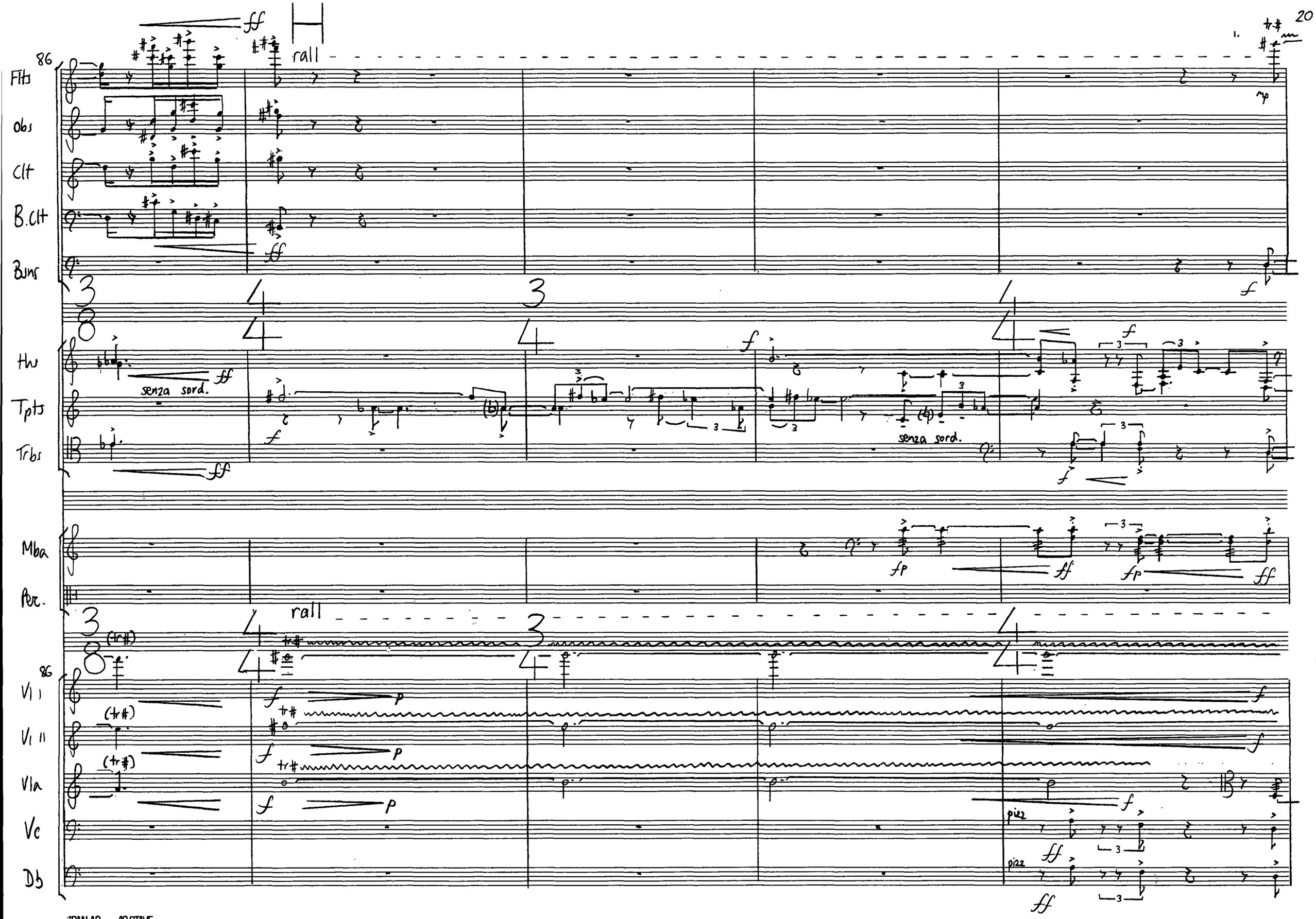

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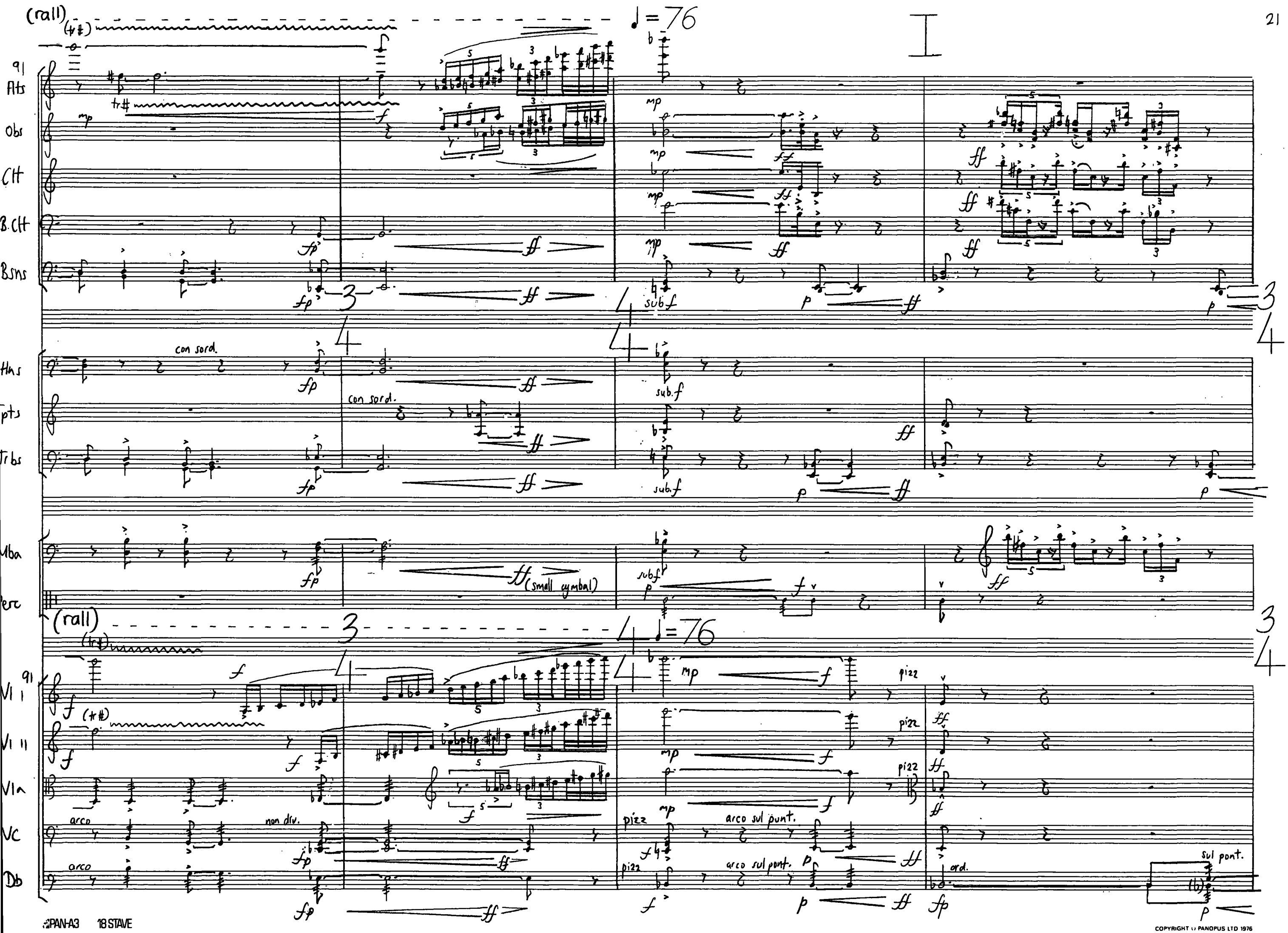

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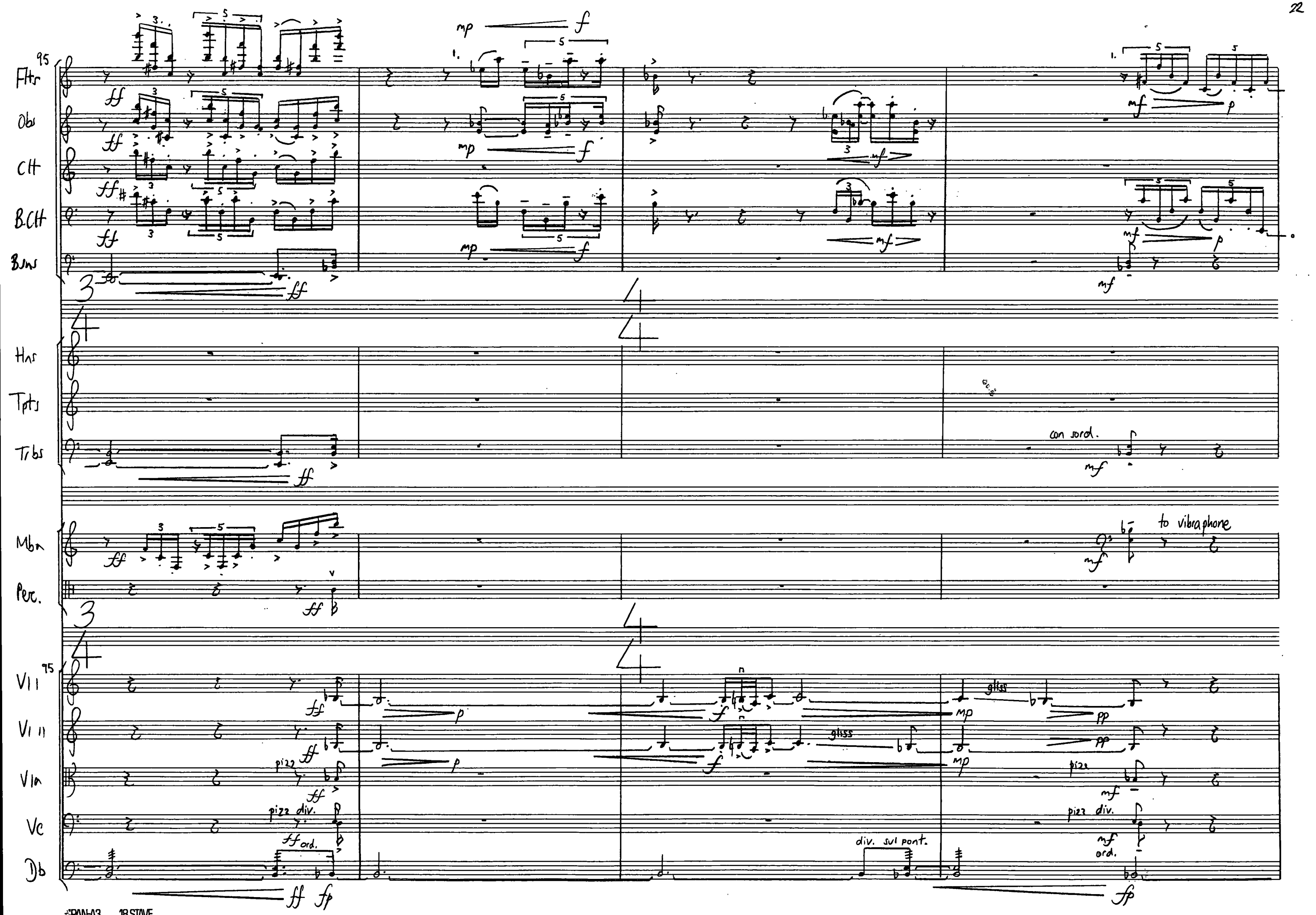

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rit ♩=56

99

Flts

Obs

Clt

B.Clt

Bsns

Hns

Tpts

Trbs

Vib

Perc.

3/4

rit ♩=56

99

Vl I

Vl II

Vla

Vc

Db

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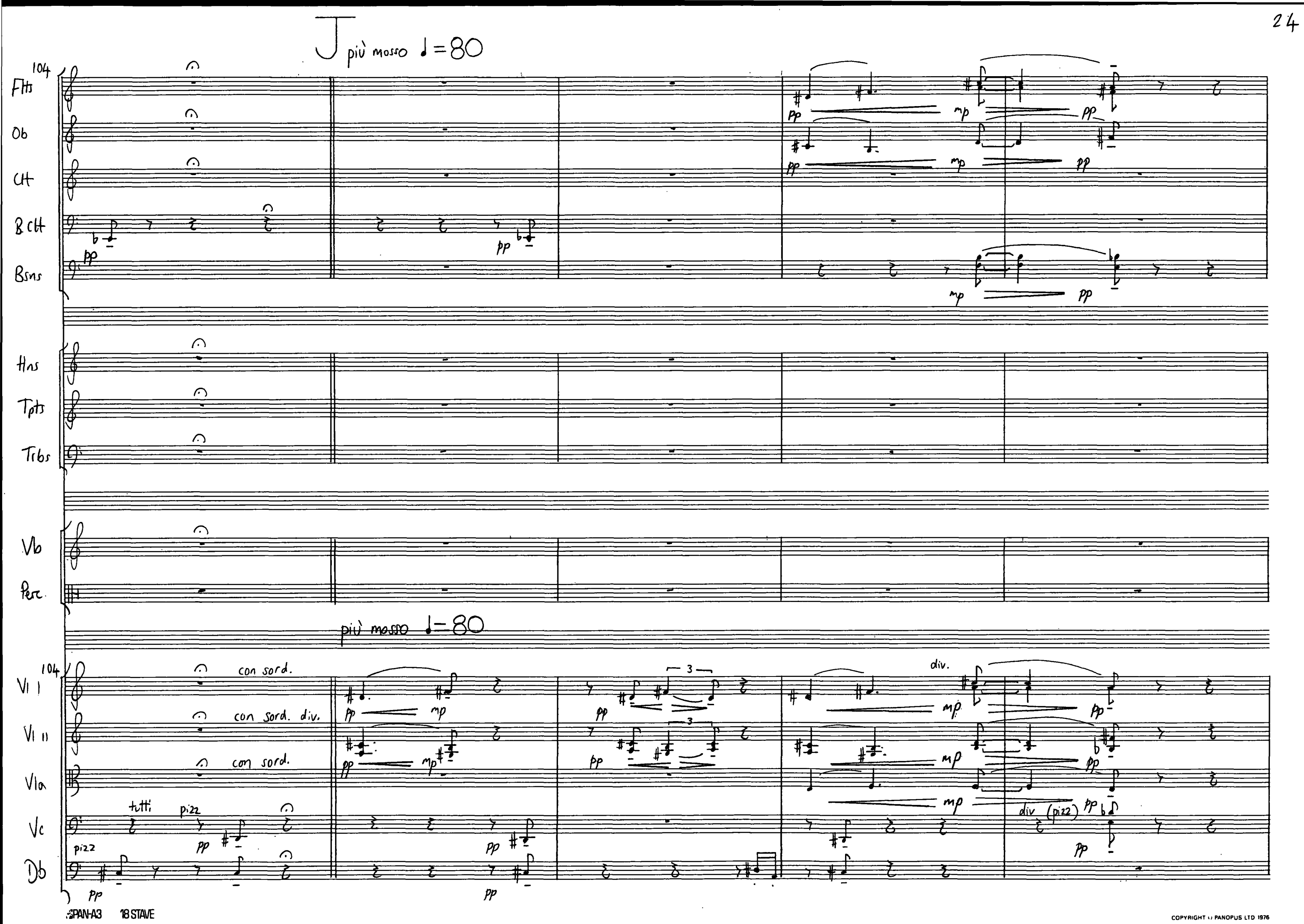

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109

Flts

Obs

Clt

B.Clt

Bsns

Hrns

Tpt

Trbs

Vb

Perc.

Vl I

Vl II

Vla

Vc

Db

senza sord. pizz div. arco div.

senza sord. pizz div. arco div.

arco div.

pizz div.

arco div.

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115

Flts

Obs

Clt

B.Clt

Bsns

Hns

Tpts

Trbs

Vb

Perc.

115

Vl I

Vl II

Vla

Vc

Db

(div.)

pizz

arco

arco div.

part.

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121

Flts

Obs

Clt

B.Clt

Bsns

Hns

Tpts

Trbs

Vib

Perc.

121

Vl I

Vl II

Vla

Vc

Db

K

to cor anglais

con sord.

med. sticks motor on

motor on

7:8

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accel. ♩=116

126

Fl 1,2

Ob

Cor Anglais

Clt

B. Clt

Bsns

Hns

Vb

Perc

sob

accel. ♩=116

126

Vl I

Vl II

Vla

Vc

Db

(solo)

sul pont. sub. p

tutti

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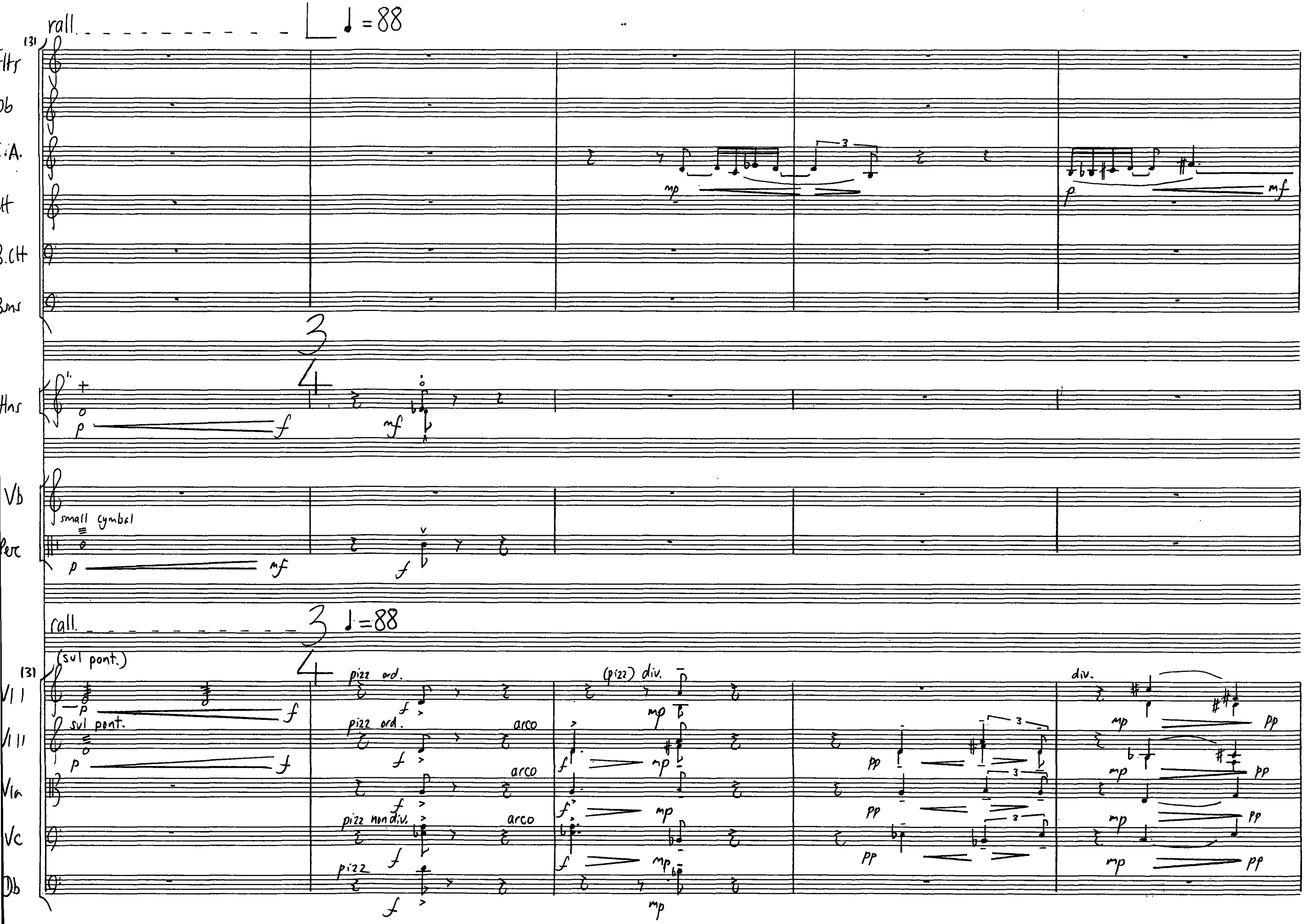

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136

Flts

Ob

C.A.

Clt.

B.Clt

Bsns

Hns

Vb

Perc.

136

Vl I

Vl II

Vla

Vc

Db

(pizz)

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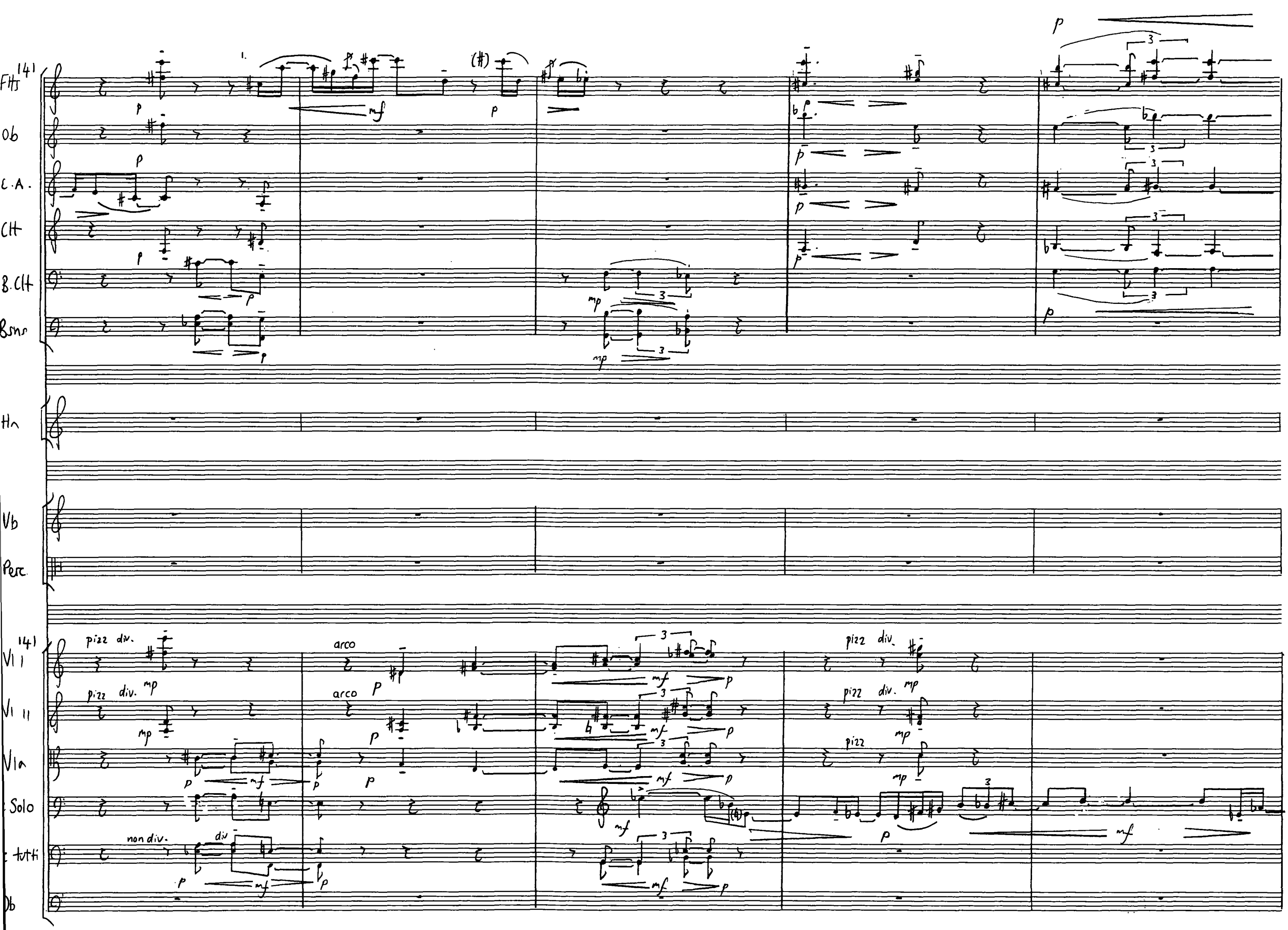

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146

Flts

Ob

C.A.

Clt

B.Clt

Bsns

Hns

Vb

Perc

146

Vl I

Vl II

Vla

Vc Solo

Vc tutti

Db

(pizz)

arco div.

port.

pizz

arco

div.

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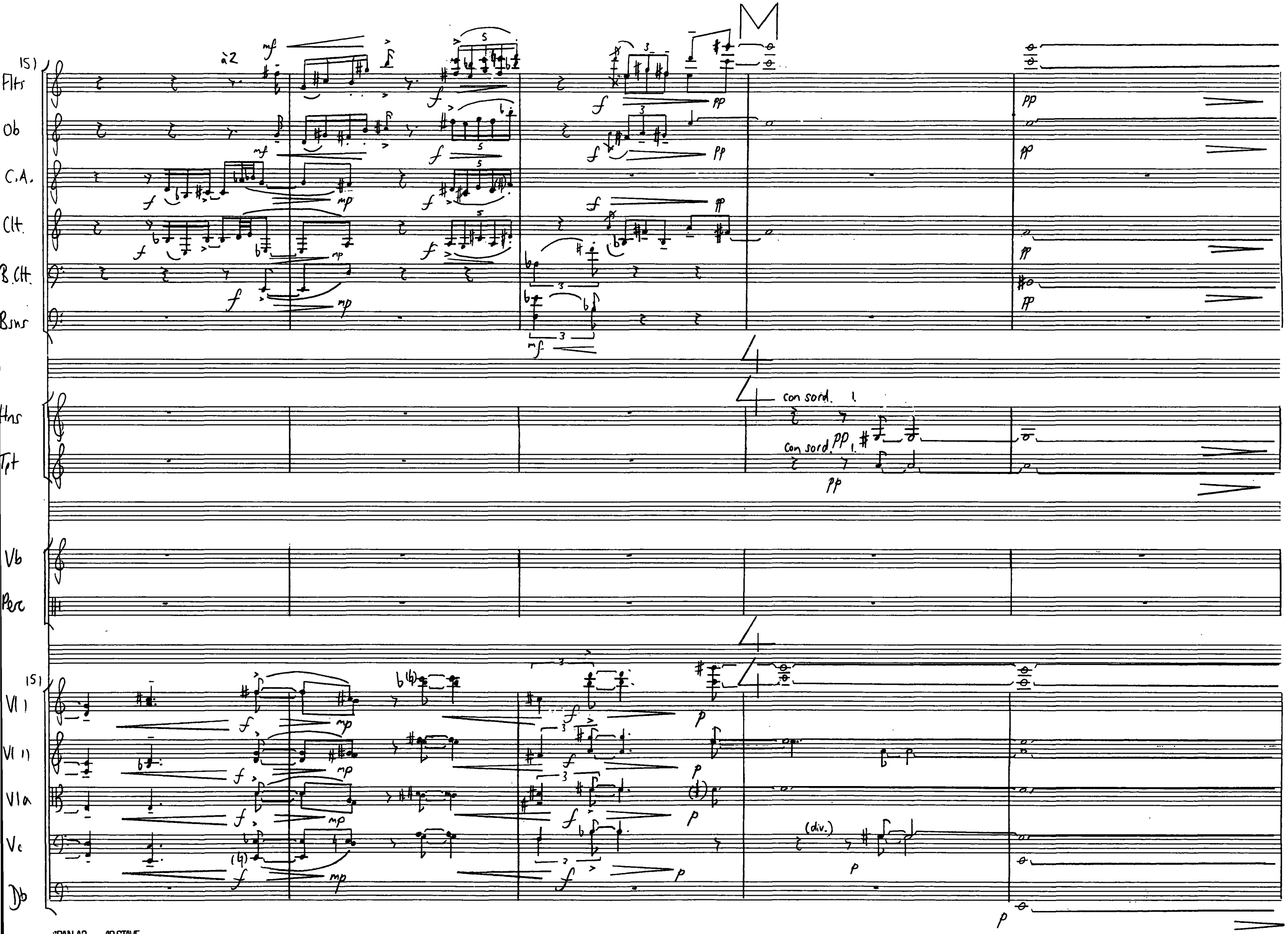

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accel.

156

Flts

Ob

C.A.

Clt

B.Clt

Bsns

Hns

Tpt

Vb

Perc

156

solo

accel.

Vl I

Vl II

Vla

Vc

Db

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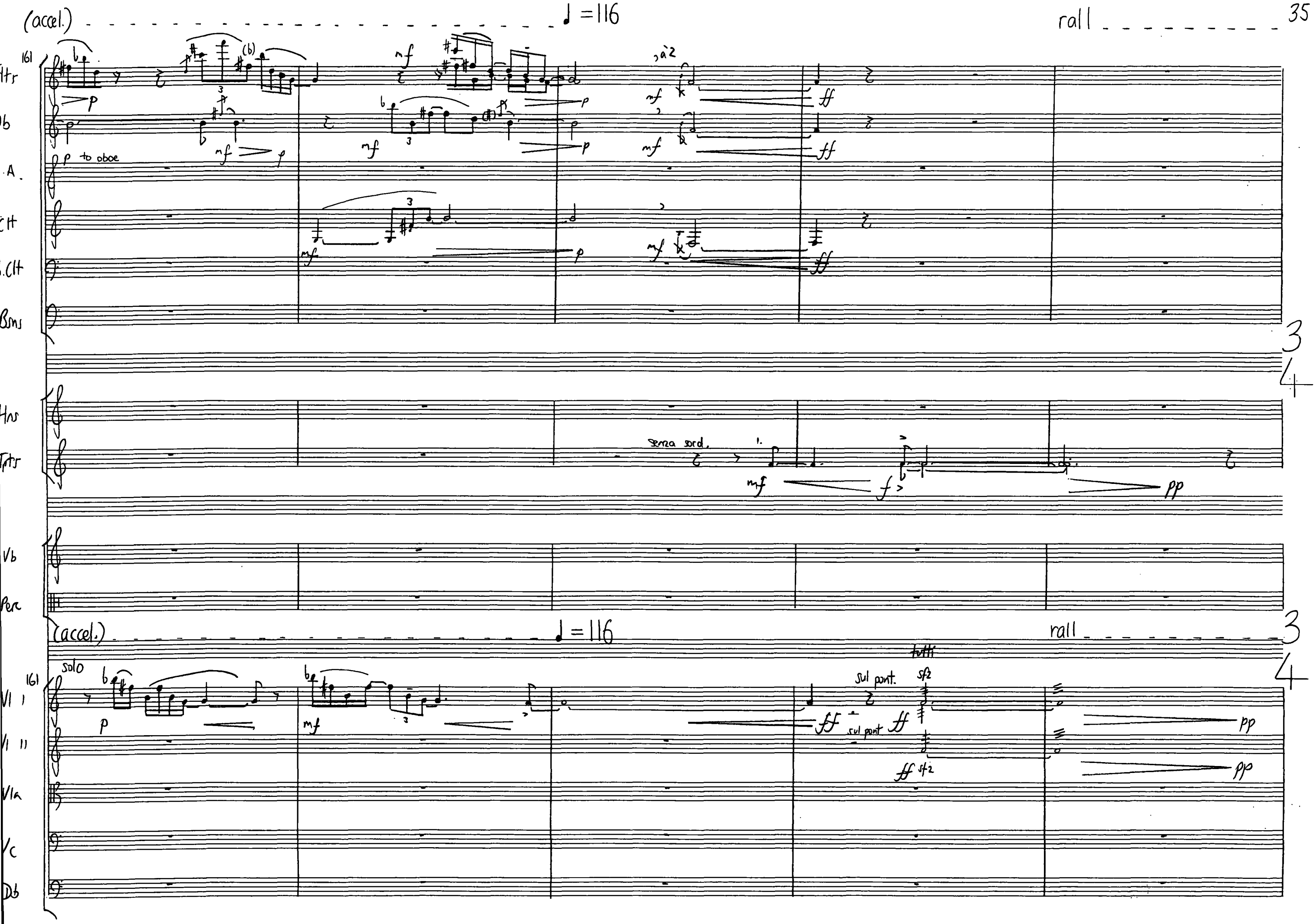

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N ♩=96

166

Flts

Obs

Clt

B.Clt

Bsns

Hns

Tpts

Vb

Perc

3 ♩=96

166

Vl I

Vl II

Vla

Vc

Db

con sord.

senza sord.

ord.

port.

arco

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171

Flts

Obs

Cl♭

B.Cl♭

Bsns

Hns

Tpts

Vb

Perc

171

Vl I

Vl II

Vla

Vc Solo

Vc tutti

Db

con sord.

con sord.

arco div

arco div

arco div

arco

arco

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176

Fl1s
Obs
Cl1
B.Cl1
Bsns
Hns
Tpts
Vb
Perc
Vl I
Vl II
Vla
Vc Solo
Vc Tutti
Db

(sord.)
senza sord.
(small cymbal)
port.
pizz
arco
arco (div.)

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181

Flts

Obs

Clt

B.Clt

Bsns

Hns

Tpts

Trbs

Vb

Perc.

181

Vl I

Vl II

Vla

Vc

Db

to marimba

(small cymbal)

PAN-A3 18 STAVE

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rall. più agitato ♩=108

186

Flts

Obs

Clt.

B.Clt.

Bsns

Hns

Tpts

Trbs

Mba

Perc.

wood blocks

5 rall. più agitato ♩=108

186

Vl I

Vl II

Vla

Vc

Db

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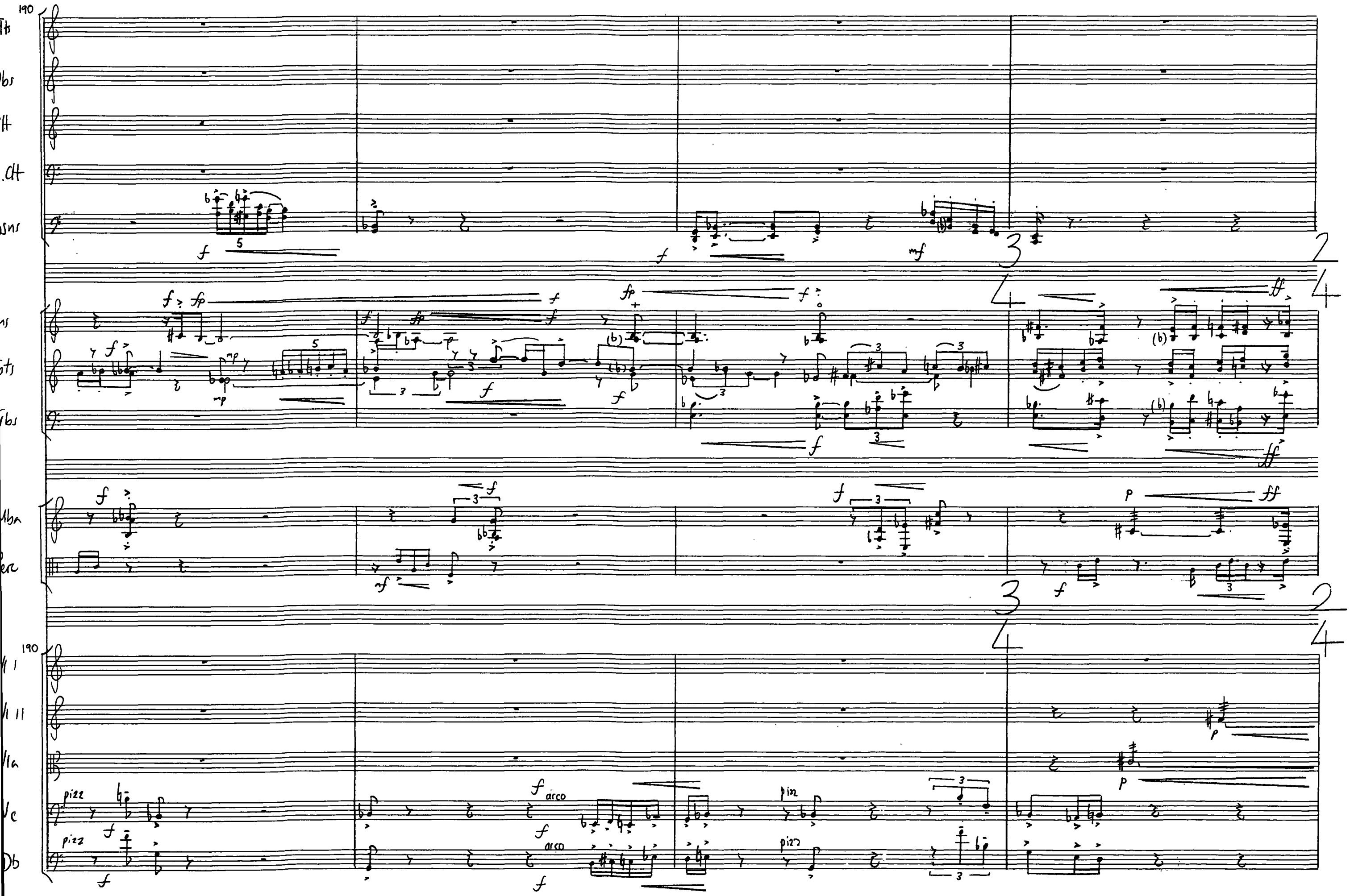

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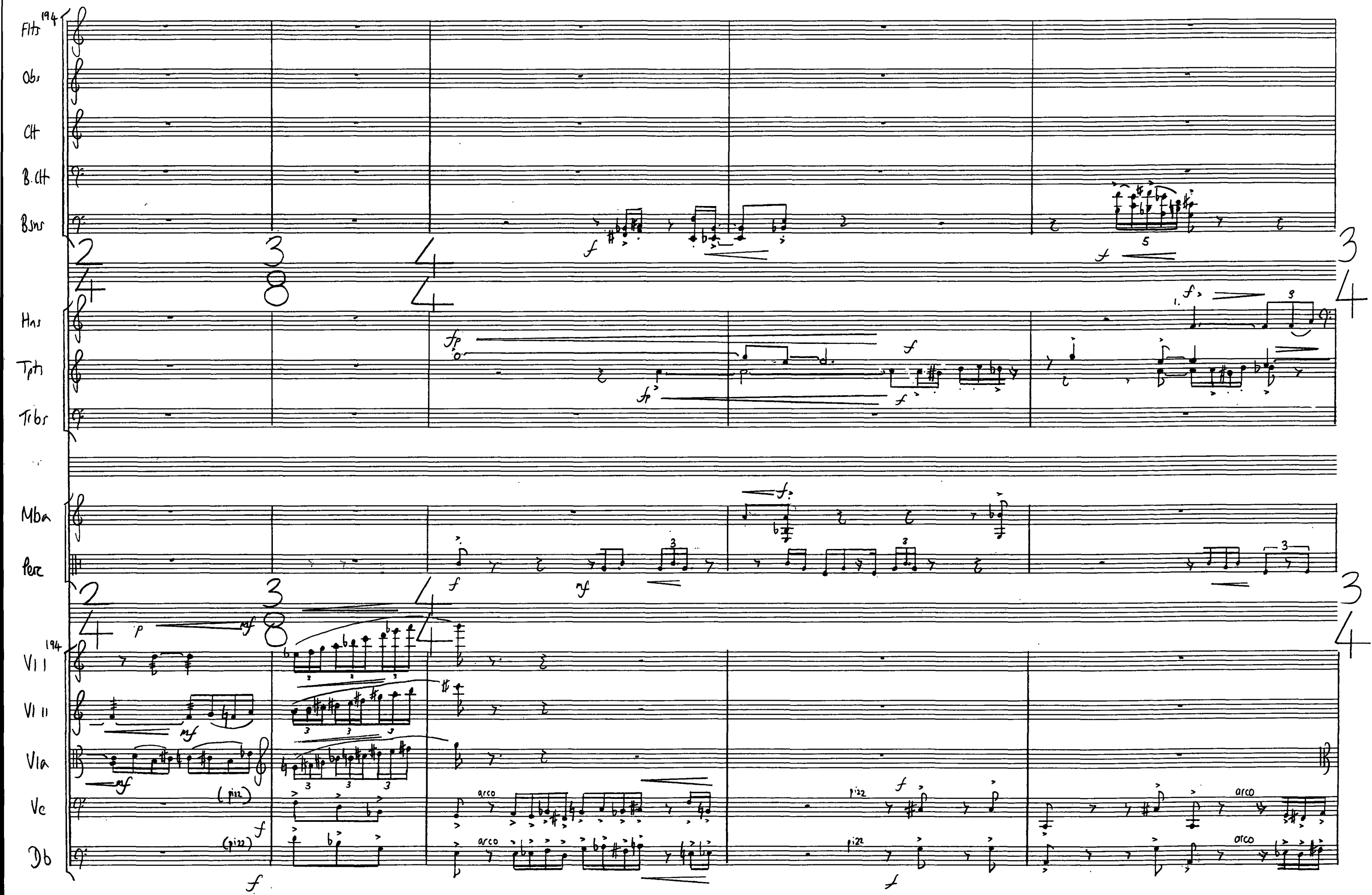

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199

Fltr

Obs

Clt

B.Clt

Bsns

Hns

Tpts

Trbs

Mba

Perc.

199

Vl I

Vl II

Vla

Vc

Db

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Q

204

Fl 1

Obs

Cl 1

B. Cl 1

Bsns

Hns

Tpts

Tbns

Mba

Perc.

Vl I

Vl II

Vla

Vc

Db

arco

arco

pizz

pizz

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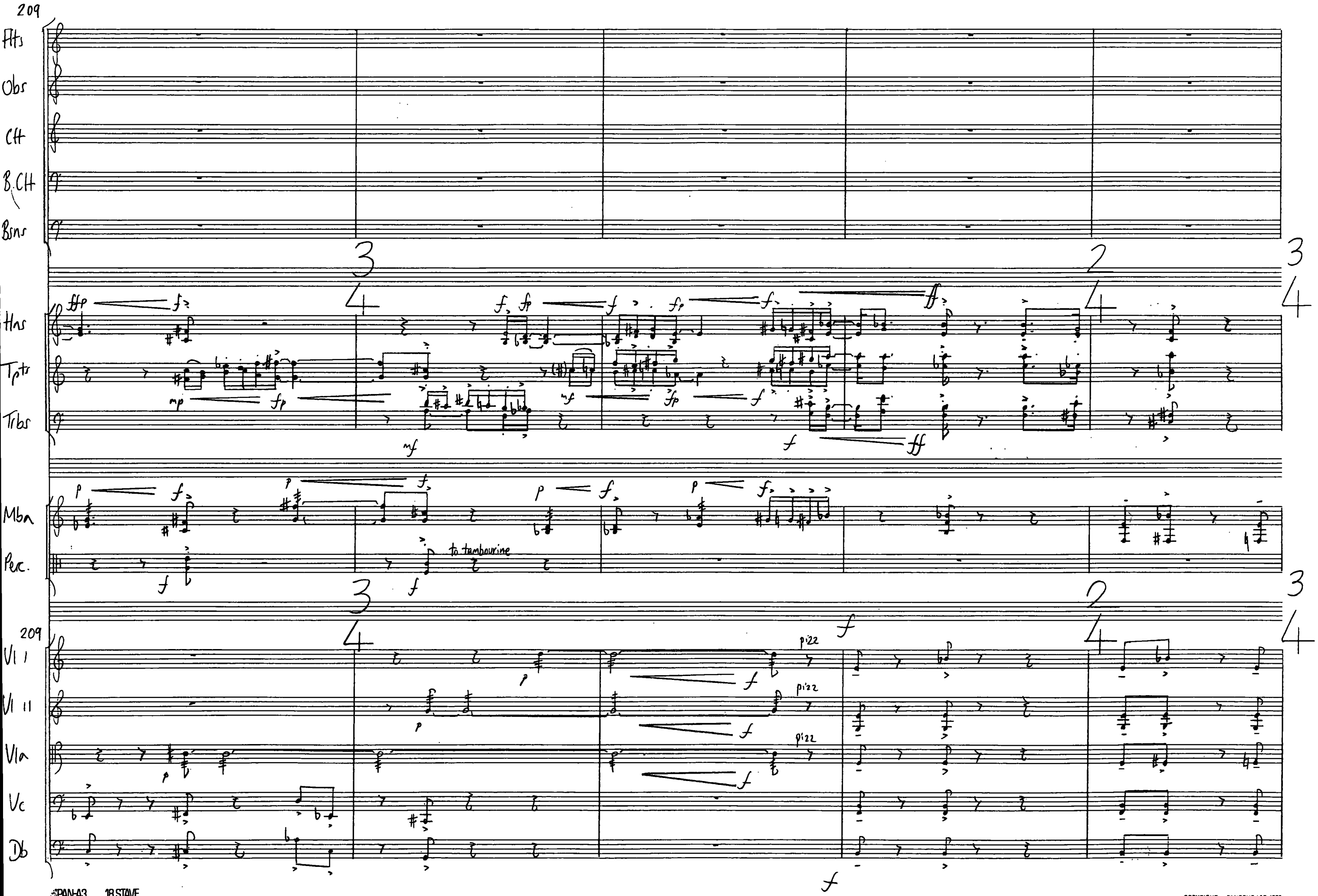

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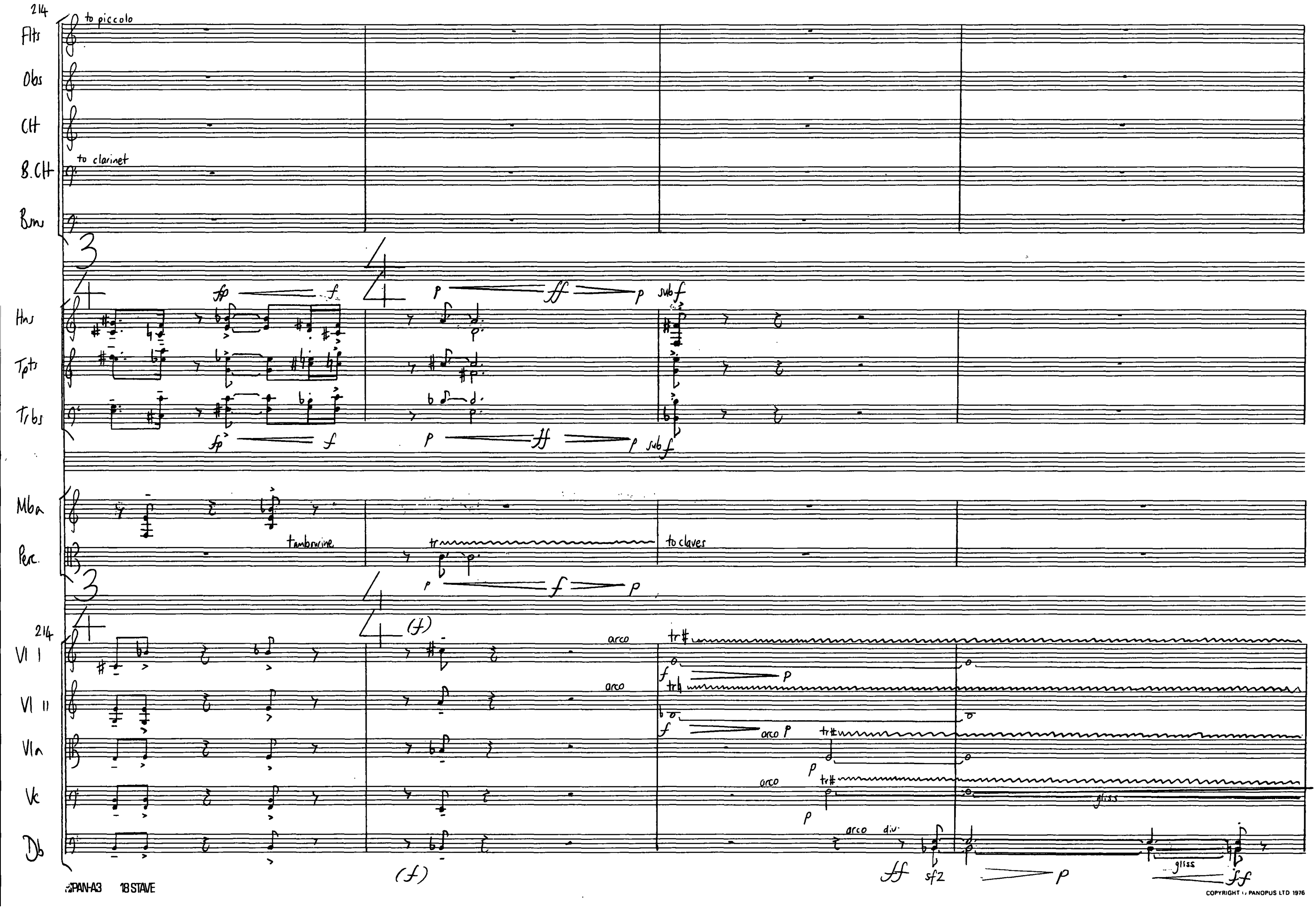

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R frenetico ♩=120

218

Fl

Piccolo

Obs

Cl Hrs

Bsns

Hrns

Tpts

Trbs

con sord.

con sord.

Tba

Perc

claves

frenetico ♩=120

218

Vl I

Vl II

Vla

Vc

Db

con legno batt.

con legno batt.

con legno batt.

non div.

gliss

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223

FH

Pic

Obs

Cls

Bsns

Hns

Tpts

Trbs

Mba

Perc.

223

Vl I

Vl II

Vla

Vc

Db

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228

Flt

Pic

Obs

Clts

Bsns

Hns

senza sord.

Tpts

senza sord.

Trbs

Mba

to tambourine

Perc.

228

Vl I

pizz

Vl II

pizz

Vla

pizz

Vc

(pizz)

Db

pizz

gliss

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molto rall ♩ = 72

233

Fl

Pic

Obs

Cls

Bsns

Hns

Tpts

Trbs

Mba

to vibraphone

(tr)

to woodblocks

Perc.

molto rall ♩ = 72

233

Vl I

Vl II

Vla

Vc

Db

arco div.

arco

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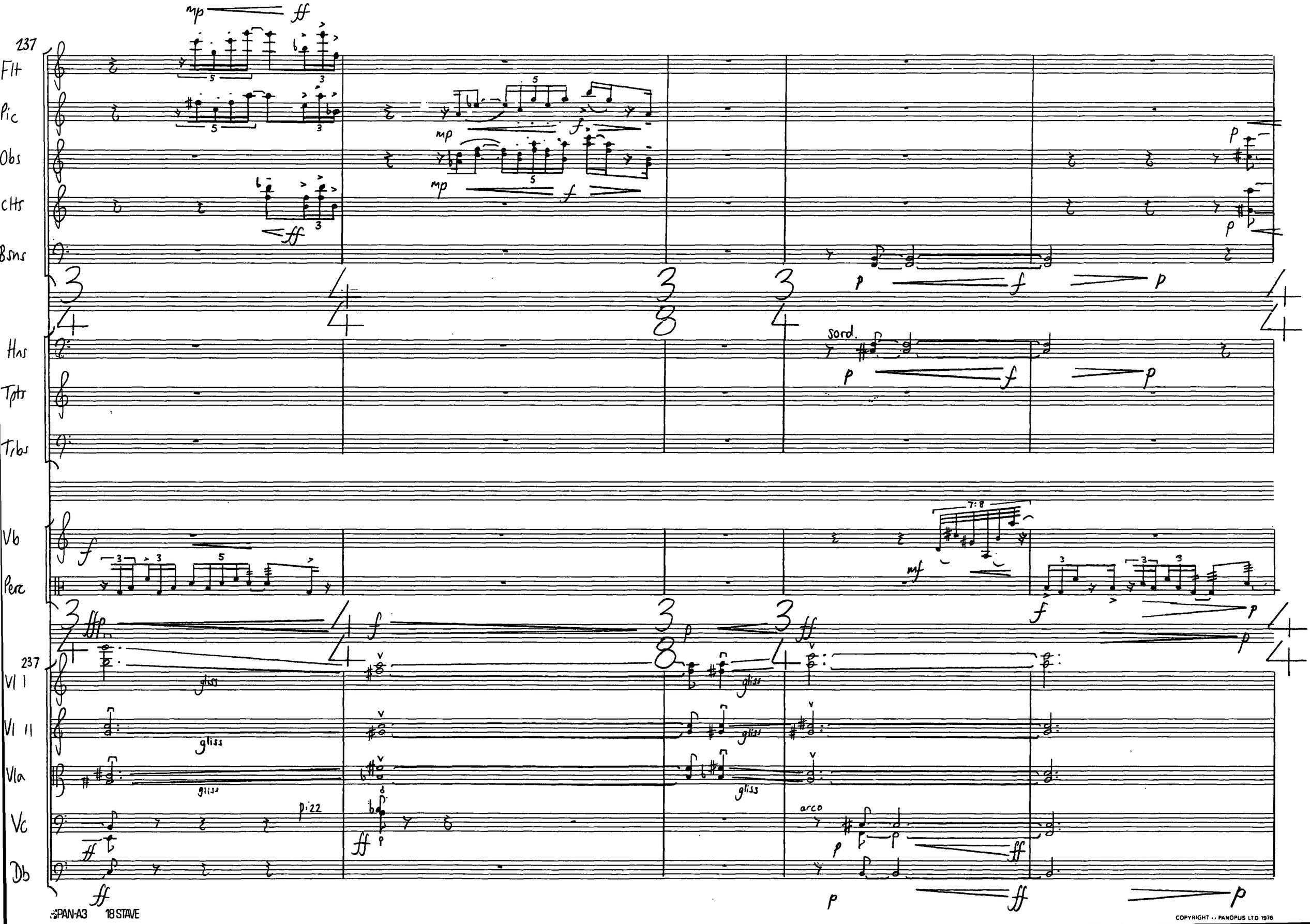

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molto accel

242

Fl+

Pic

Obs

Clts

Bsns

Hns

Tpt

Trbs

Vb

Perc.

242

Vl I

Vl II

Vla

Vc

Db

to marimba

senza sord.

molto accel

cresc poco a poco

cresc. poco a poco

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(molto accel) ♩=112

247

Flt

Clc

Obs

Clts

Bsns

Hns

Tpts

Trbs

Vba

Perc.

(molto accel) ♩=112

247

Vl I

Vl II

Vla

Vc

Db

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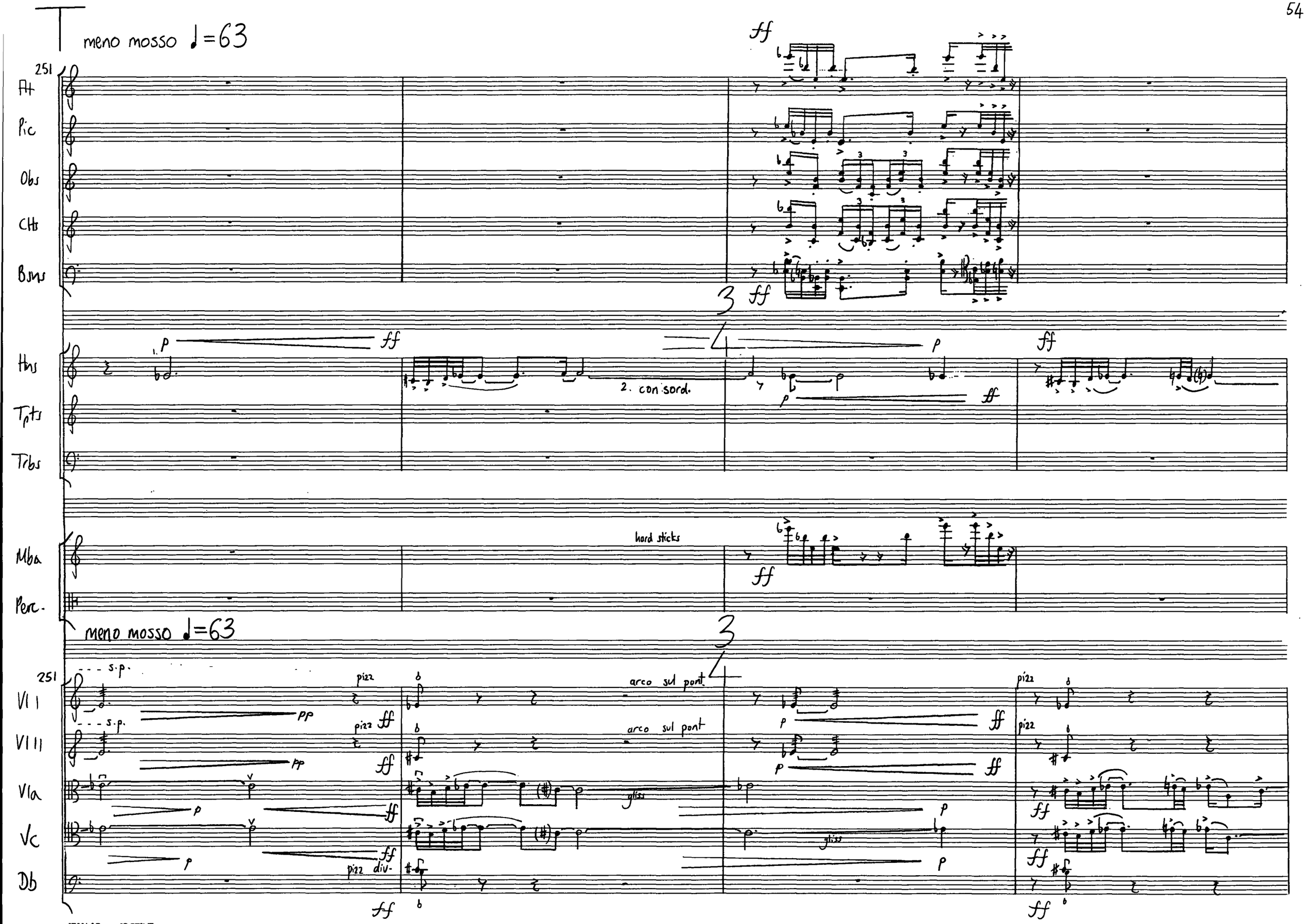

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255

Flt

Pic

Obs

Clts

Bsns

Hns

Tpts

Trbs

Mba

Perc.

255

Vl I

Vl II

Vla

Vc

Db

con sord.

1. con sord.

arco s.p.

arco s.p. p

pizz

gliss

soli

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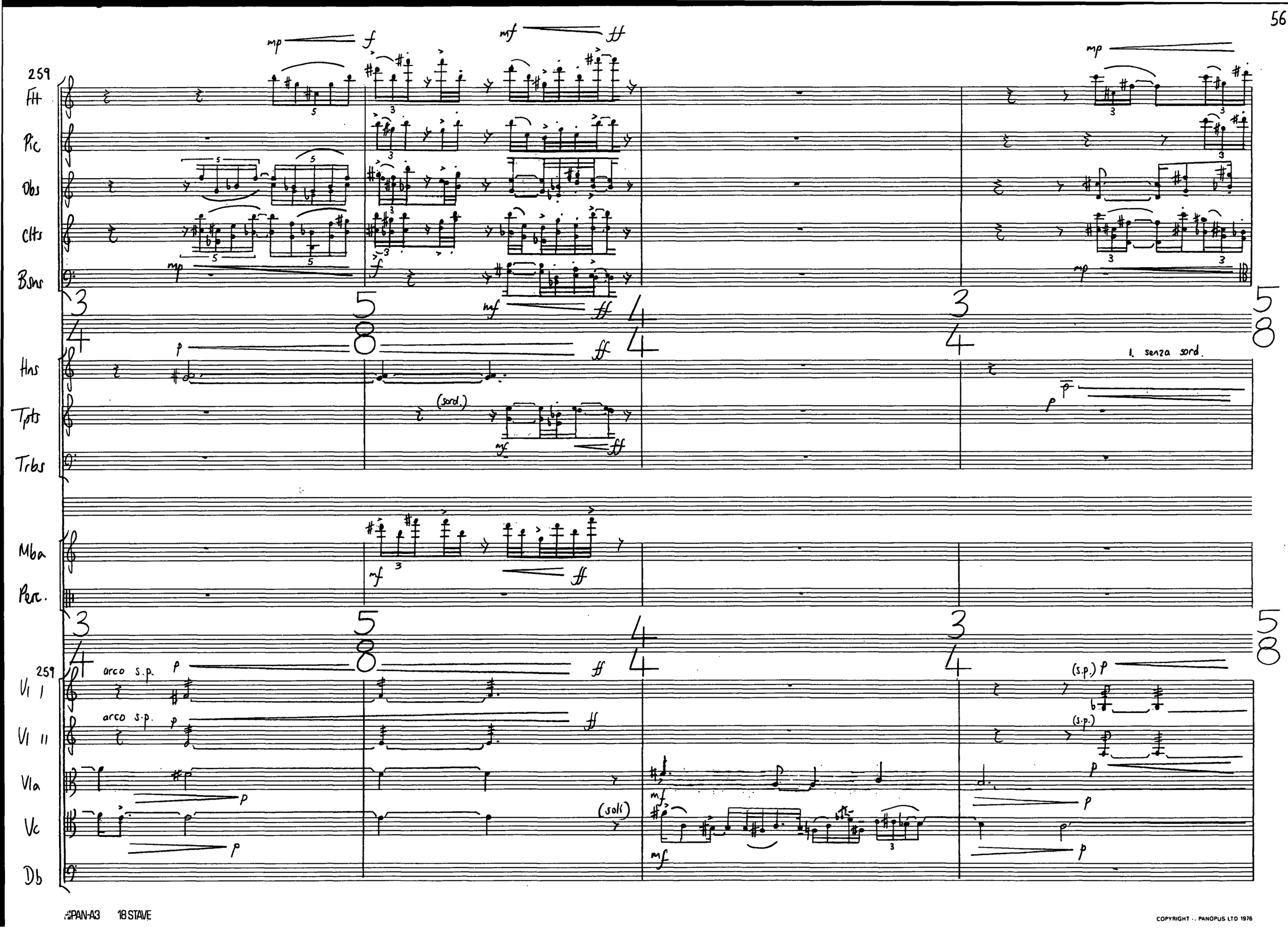

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263

Flt

Pic

Obs

Clts

Bsns

Hns

Tpts

Trbs

Mba

Perc.

263

Vl I

Vl II

Vla

Vc

Db

1.

2. senza sord.

tutti

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267

Fl I

Pic

Obs

Cls

Bsns

Hns

Tpts

Trbs

Mba

Perc.

267

Vl I

Vl II

Vla

Vc

Db

(sord.)

(s.p.)

(s.p.)

tutti

s.p.

sub p

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271

fltt

Pic

Obs

Clts

Bsns

Hns

Tpts

Trbs

Mba

Perc.

to large cymbal

271

Vl I

Vl II

Vla

Vc

Db

ord.

ord.

ord.

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molto accel. ♩=116

275

Flt

Pic

Obs

Clrs

Bsns

3/4

Hns

Tpts

Tbs

Perc.I

Perc.II

molto accel. 3/4 ♩=116

275

Vl I

Vl II

Vla

Vc

Db

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V

meno mosso ♩=84

279

Flt

Pic

Obs

Clts

Bsns

4/4

Hns

Tpts

Trbs

Perc.I

Perc.II

large cymbal soft sticks

meno mosso ♩=84

279

Vl I

Vl II

Vla

Vc

Db

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283

Flt

Pic

Obs

Clts

Bsns

Hns

Tpts

Trbs

Perc I

Perc II

283

Vl I

Vl II

Vla

Vc

Db

PAN-A3 18 STAVE

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287

Flt

Pic

Obs

Clts

Bsns

Hrns

Tptr

Trbs

Perc I

Perc II

287

Vl I

Vl II

Vla

Vc

Db

sul pont.

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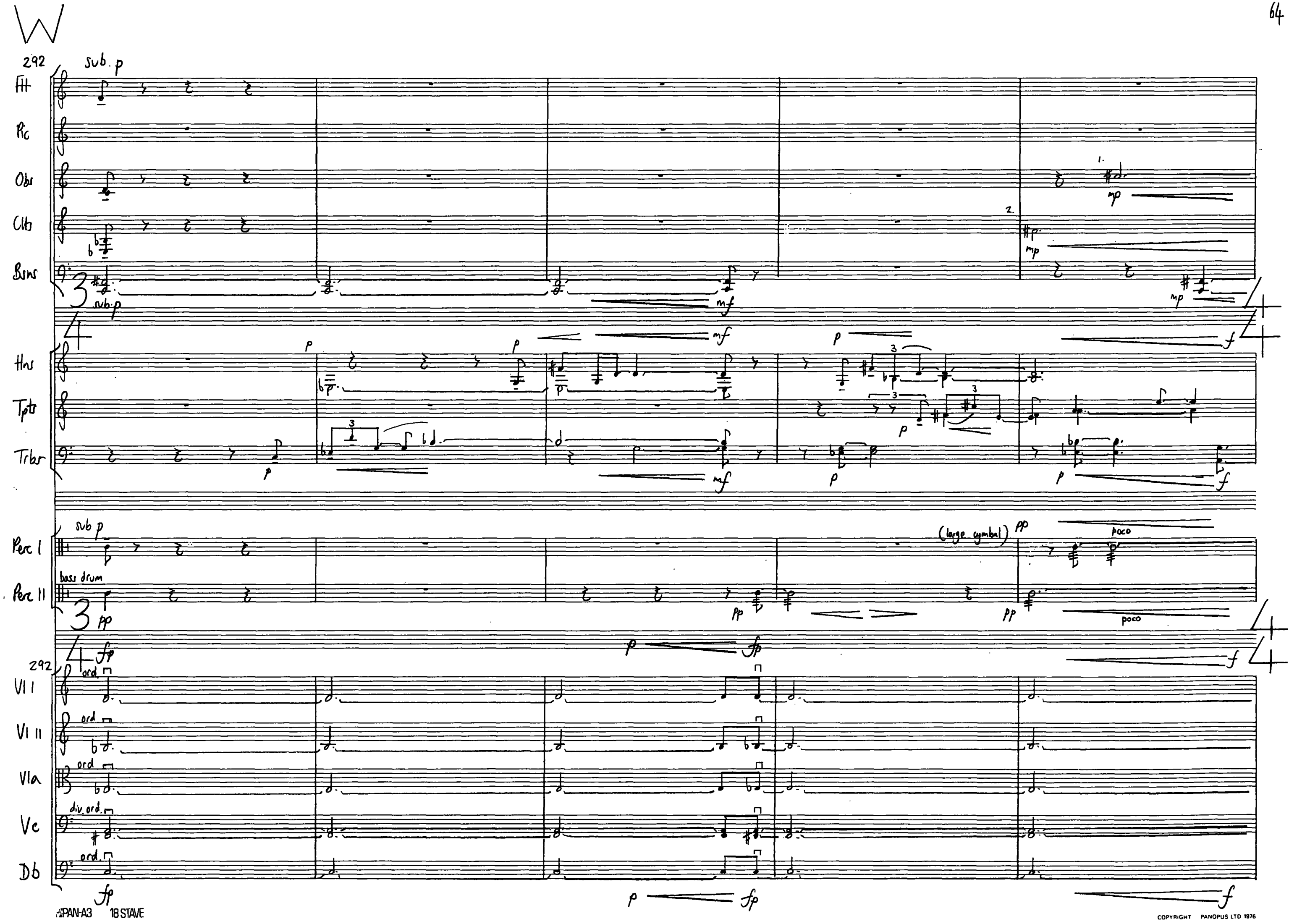

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301

Flt

Pic

pp

Obs

Clts

p

Bsns

3/4

4/4

Hns

Tpts

Tbns

Perc I

Perc II

301

Vl I

mp

pp

Vl II

mp

pp

Vla

Vc

mp

pp

Db

mp

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305

Flt

Pic

Obs

Clts

Bsns

Hns

Tpts

Trbs

Perc I

Perc II

305

Vl I

Vl II

Vla

Vc

Db

(large cymbal)

sul pont.

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309

Y

rit

Flt

Pic

Obs

Clrs

Bsns

Hns

Tpts

Trbs

Perc I

Perc II

309

Vl I

Vl II

Vla

Vc

Db

to flute

to marimba

(bass drum)

3 rit

ord.

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(rit) ♩ = 72

314

Fls

Obs

Clts

Bsns

Hns

Tpts

Trbs

Mba

Perc

314

Solo

Vl I

Vl II

Vla

Vc

Db

soft sticks

1/2 s.p.

pizz

div. s.p.

ord.

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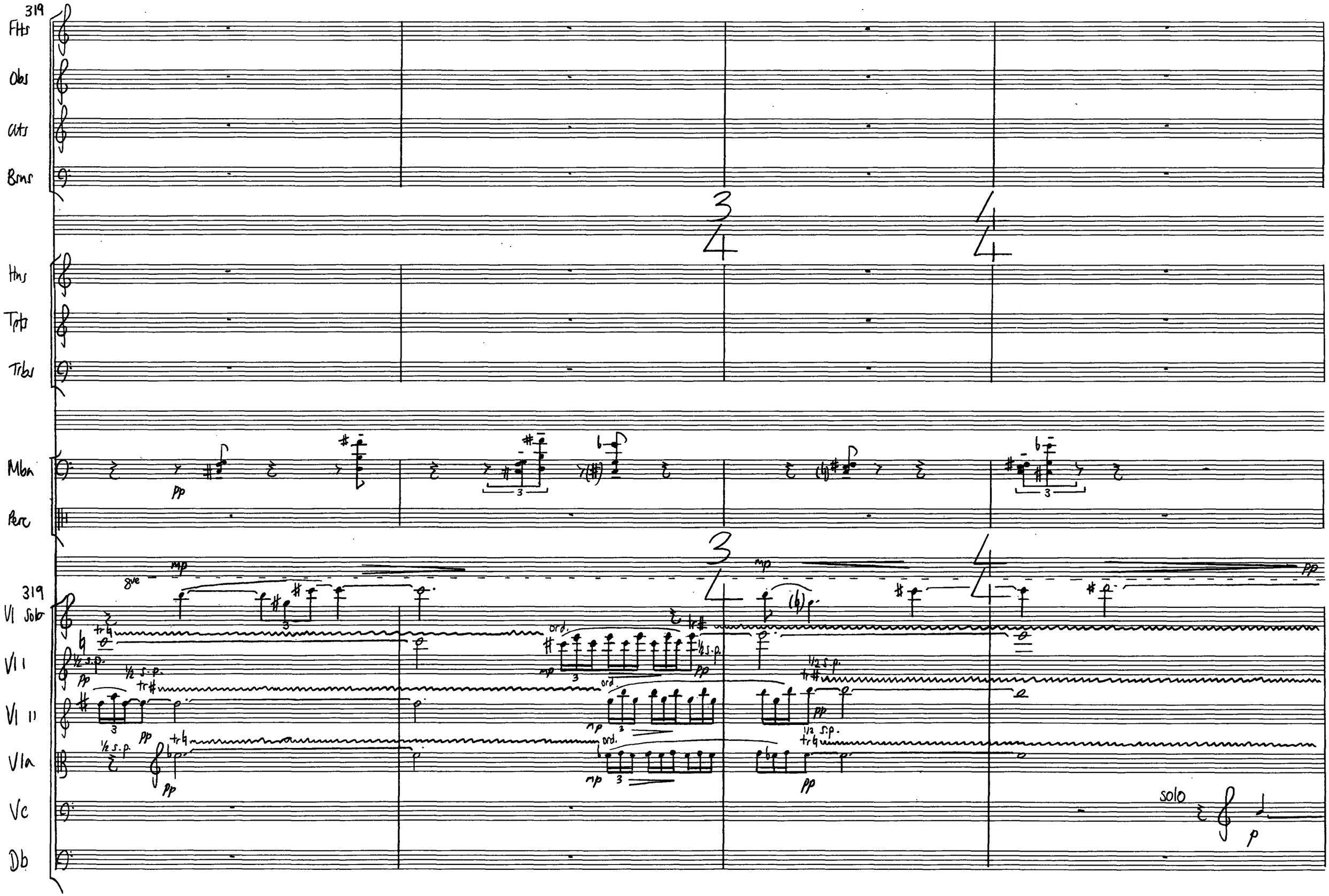

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Z meno mosso ♩=42 (𝅗𝅥=84)

323

Flts

Obs

Clts

Bsns

à2

p

mf

5/8

6/8

Hns

Tpts

Trbs

Mba

Perc

8va

323

I Solo

Vl I

Vl II

Vla

Vc

Db

pp

mp

ord.

ppp

mp solo

5

5/8

6/8 meno mosso ♩=42 (𝅗𝅥=84)

div.

mf

tutti div.

pizz

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328

Fltrs

Obs

Clrts

Bsns

Hns

Tpts

Trbs

Perc

328

Vl I Solo

Vl I

Vl II Solo

Vl II

Vla

Vc

Db

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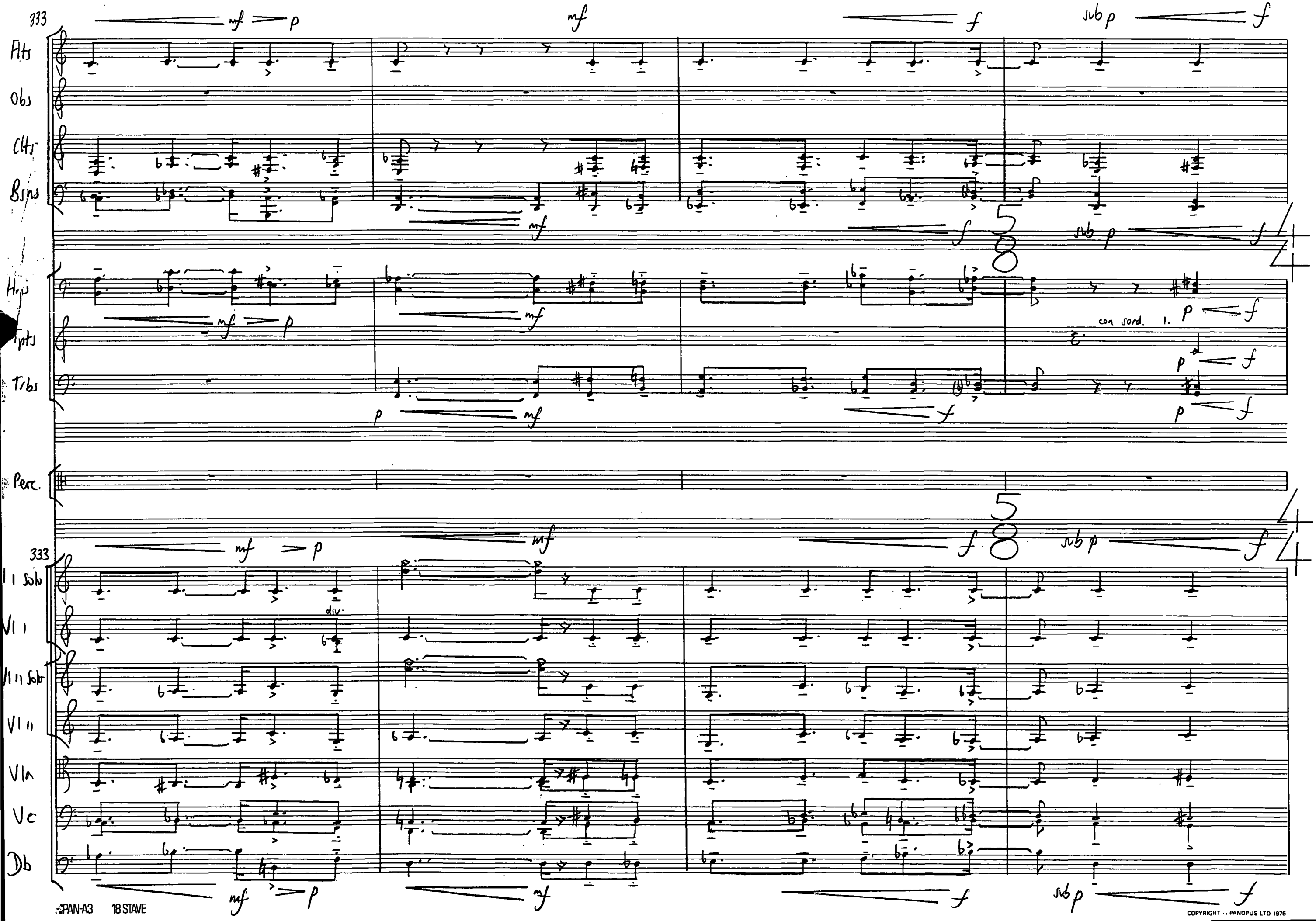

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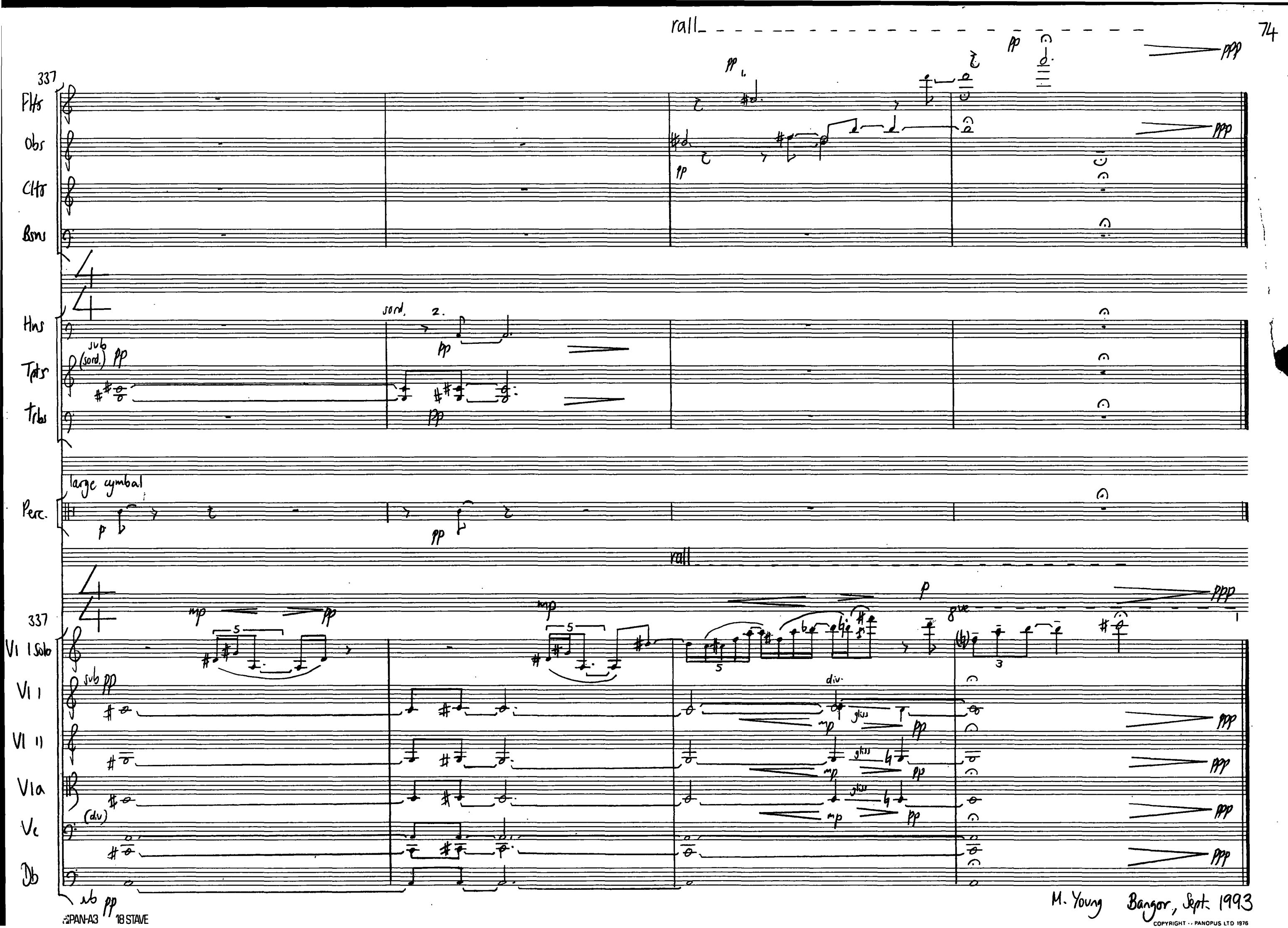

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Colloquy - Discord

Michael Young

Notation

Piano:

repeated note/chord; accel. or rit. freely within the indicated period

cluster, struck with the left or right elbow

Tape:

cluster or chord without a dominant pitch

single note, or most prominent note of a chord

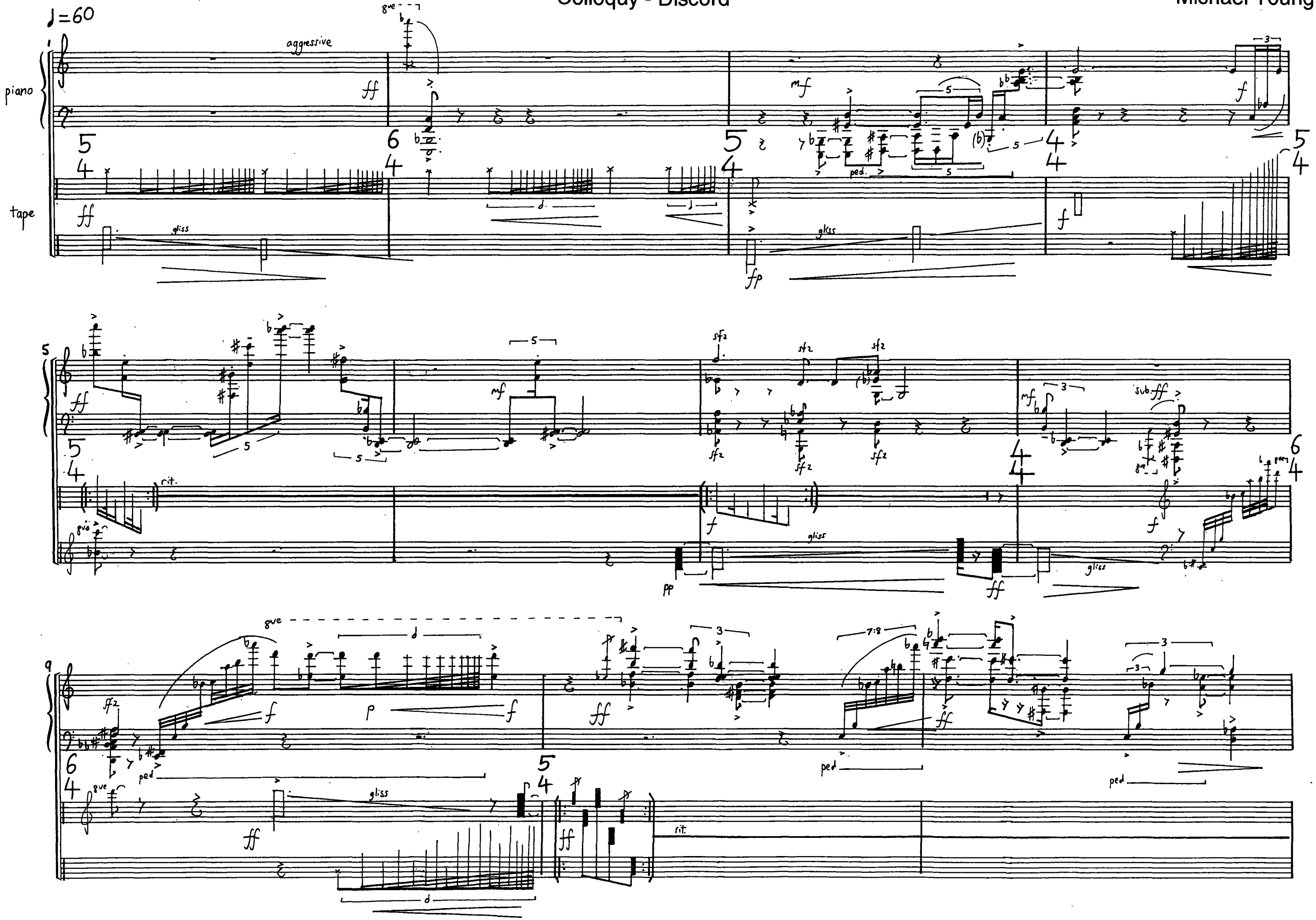
repeating fragment, or a complex texture evolving in time

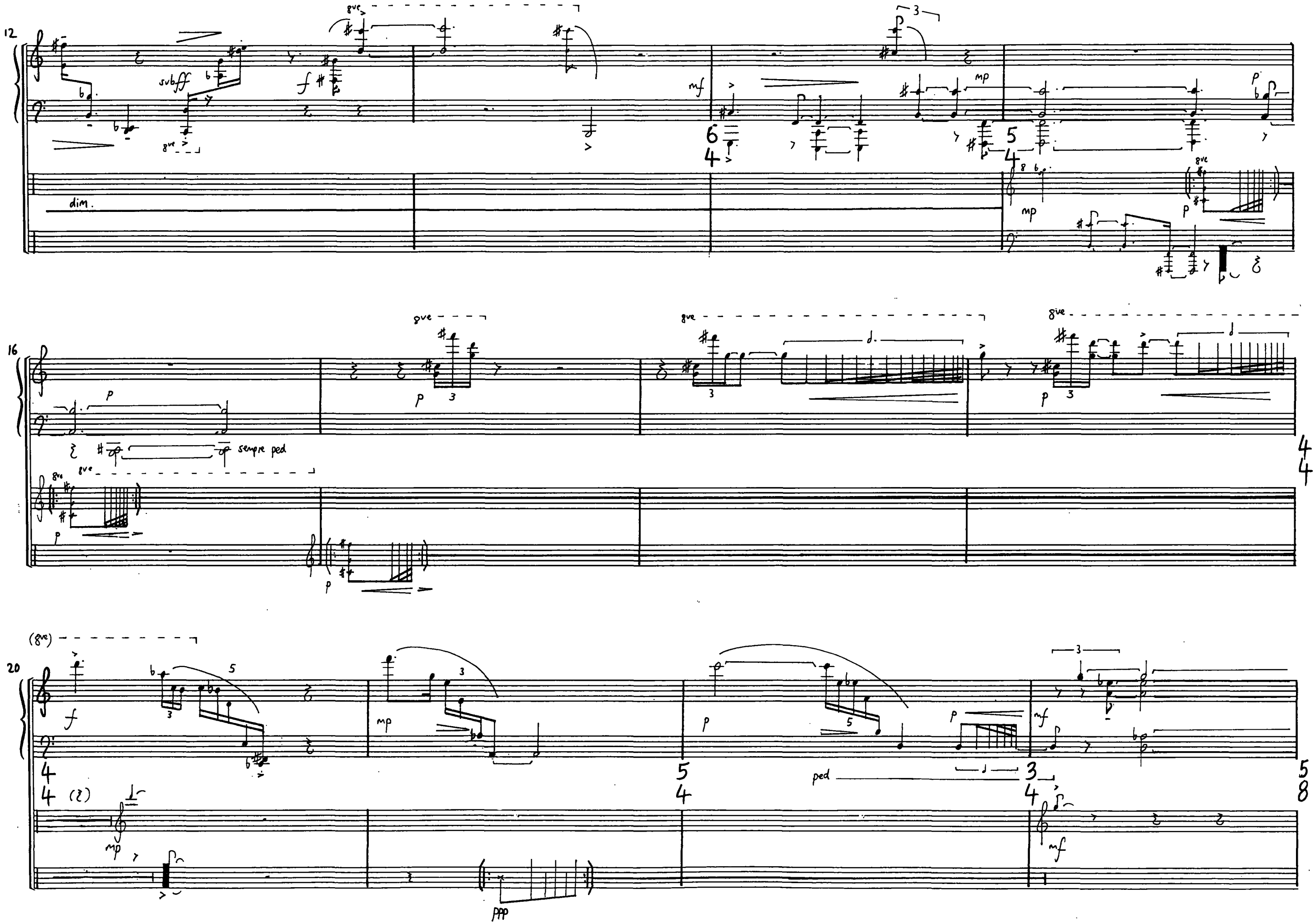
musical gesture, accel. or rit.

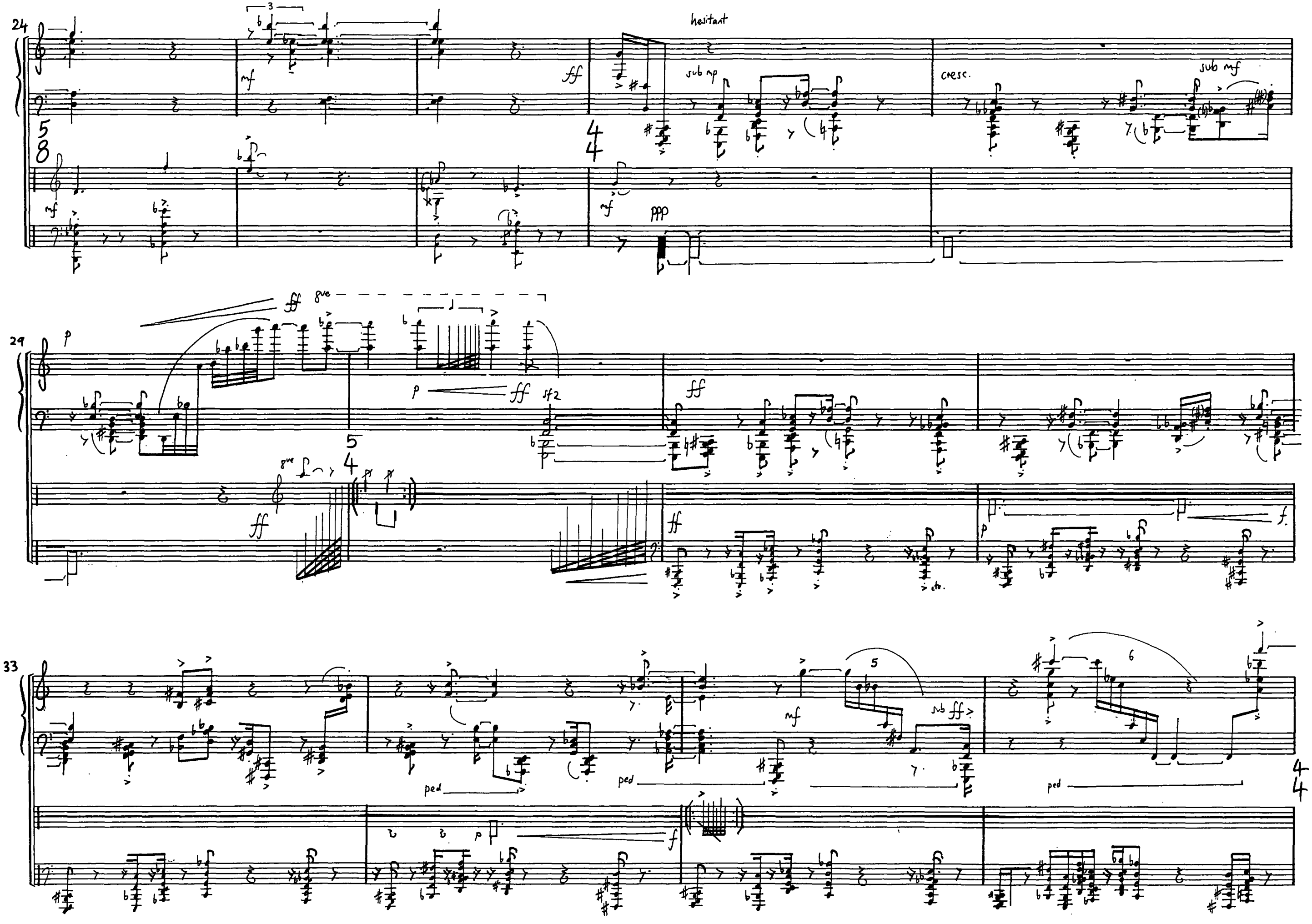
series of events (independent of pulse)

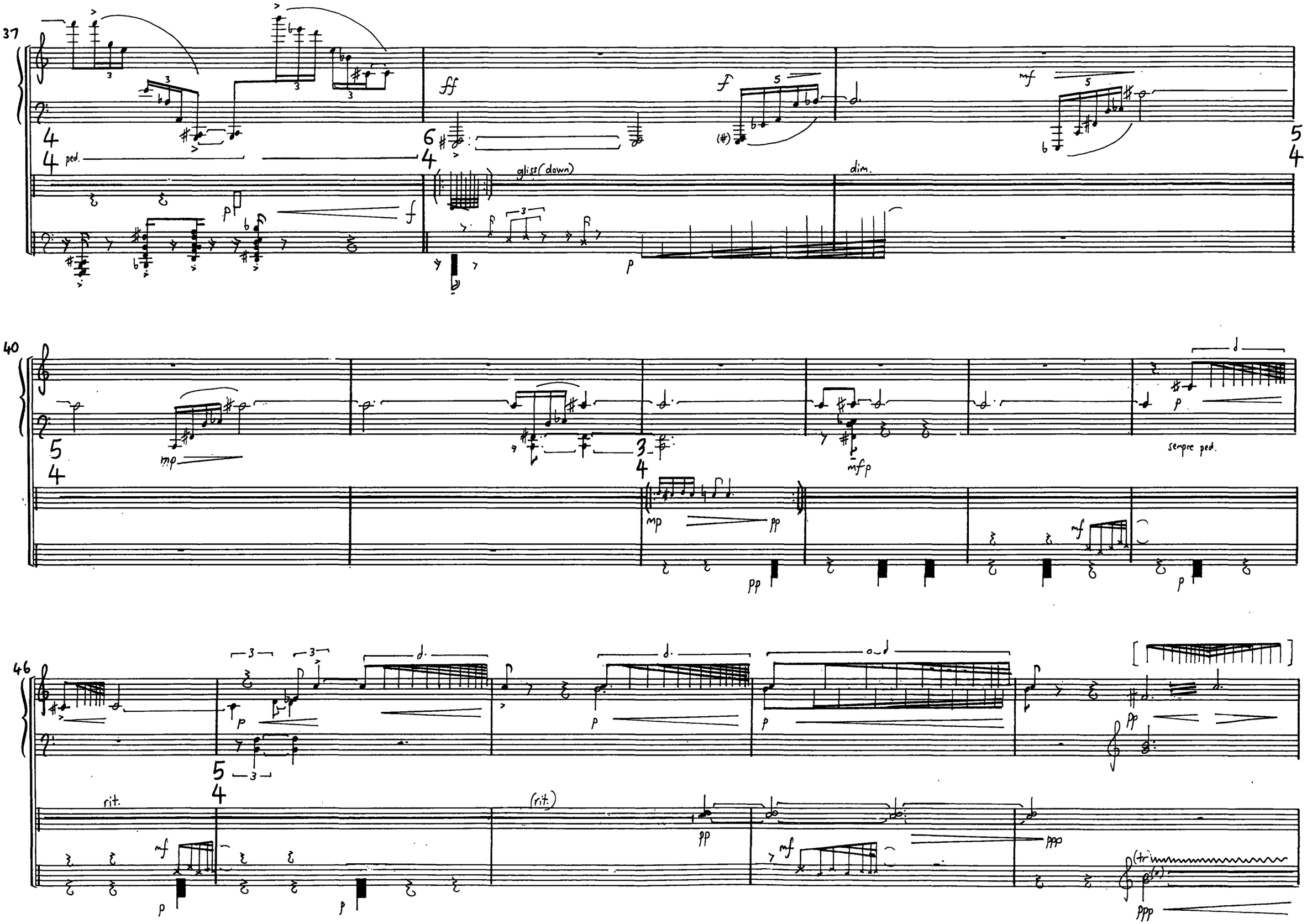
Colloquy - Discord

Michael Young




12
subff
8ve
f
mf
mp
p
dim.
16
sempre ped
20
(8ve)
ped
ppp


24
hesitant
sub mp
cresc.
sub mf
ff
mf
ppp
29
p
ff
8ve
sf2
f
33
ped
sub ff


37
ped.
ff
f
mf
gliss (down)
dim.
40
mp
mfp
sempre ped.
pp
46
rit.
(rit.)
ppp

51

sempre ped.

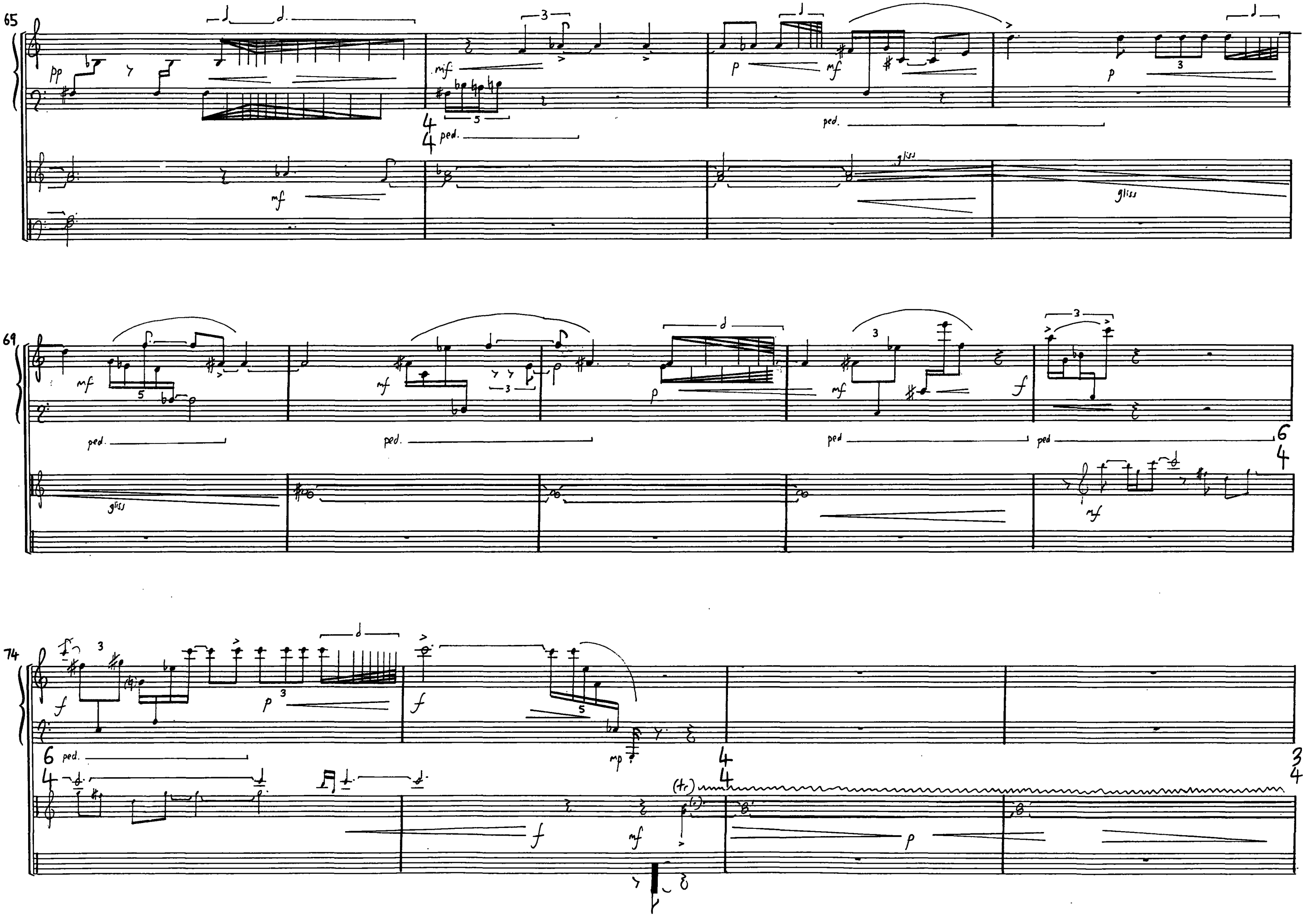
56

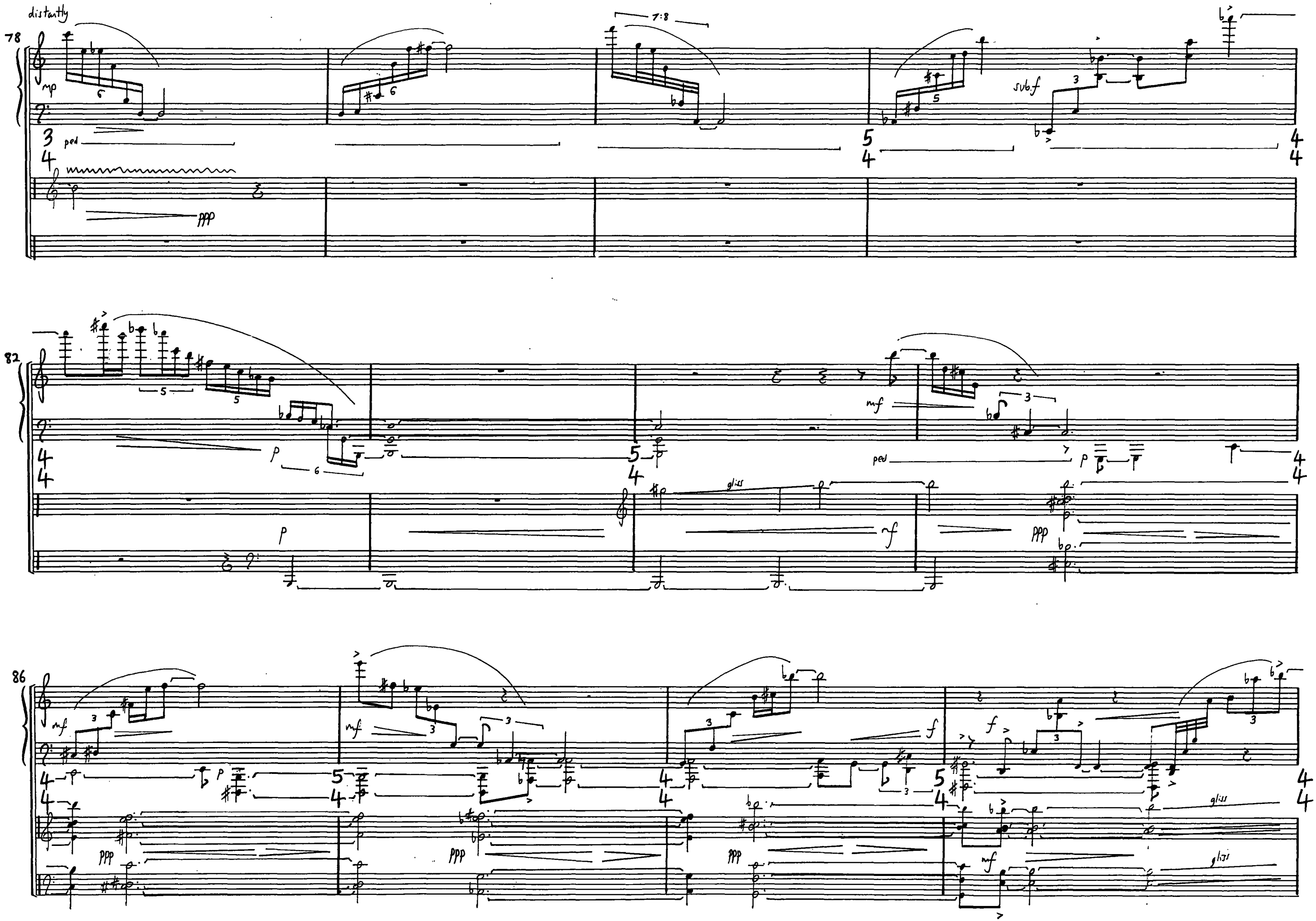
gliss

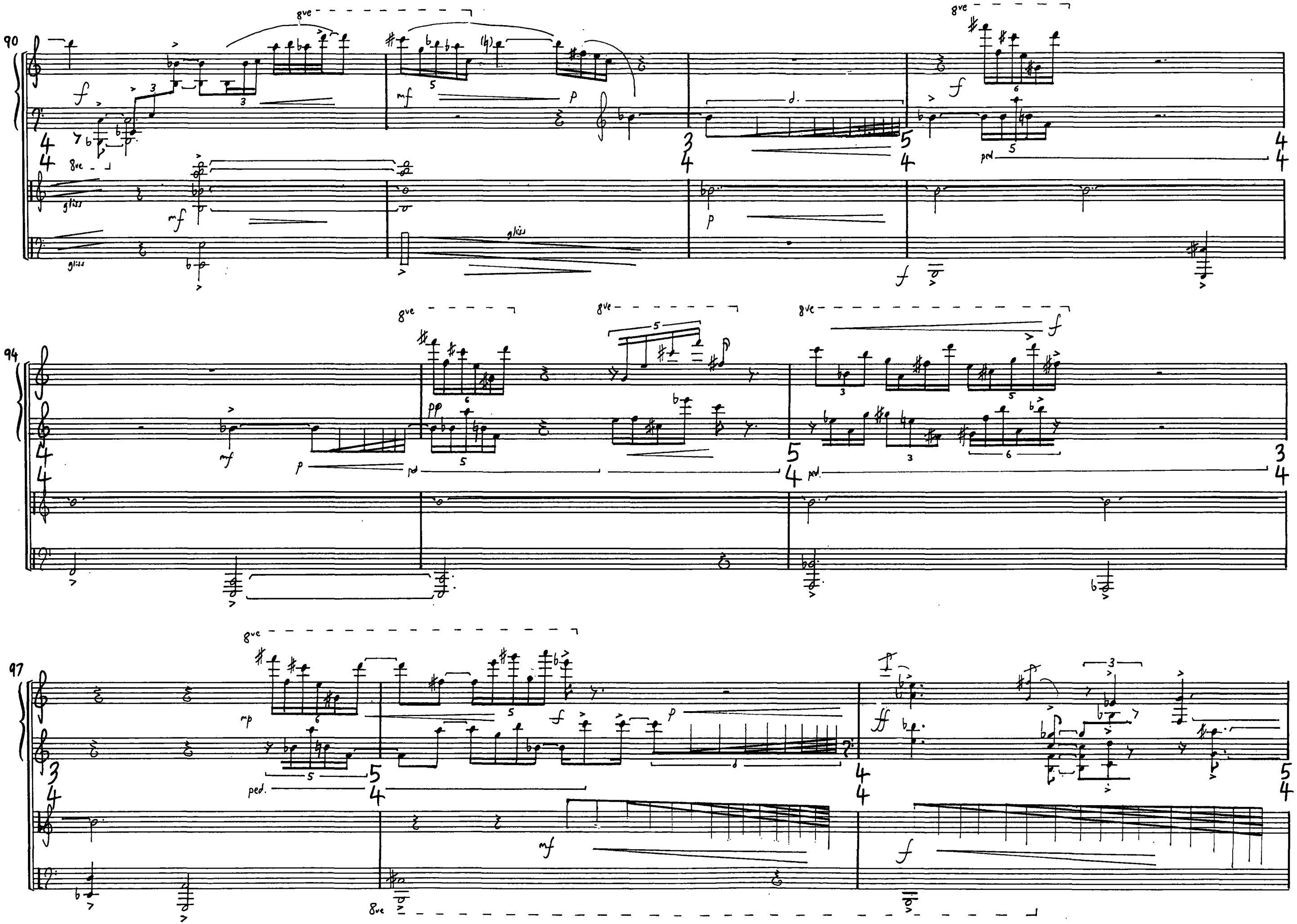
61

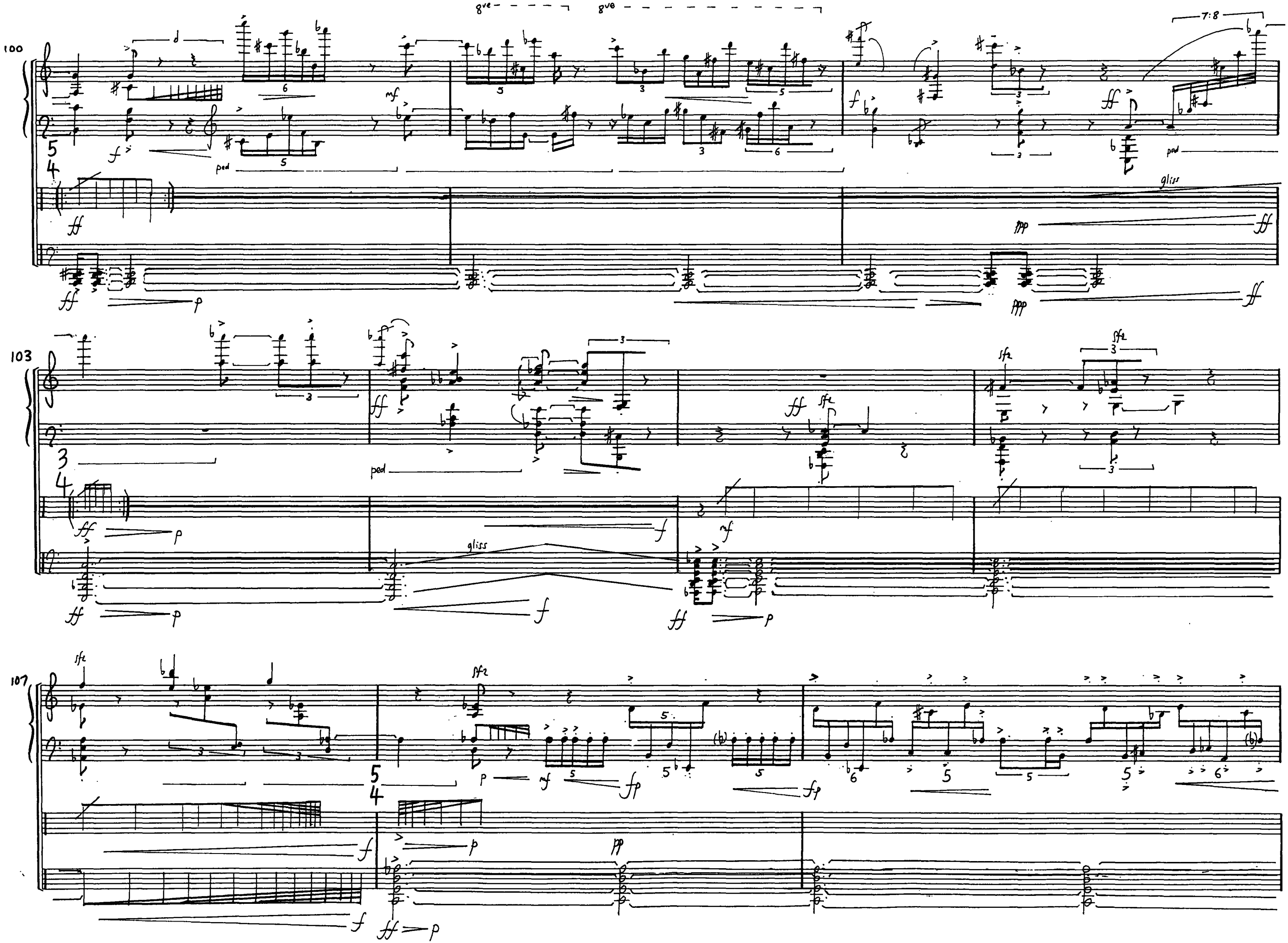
ped

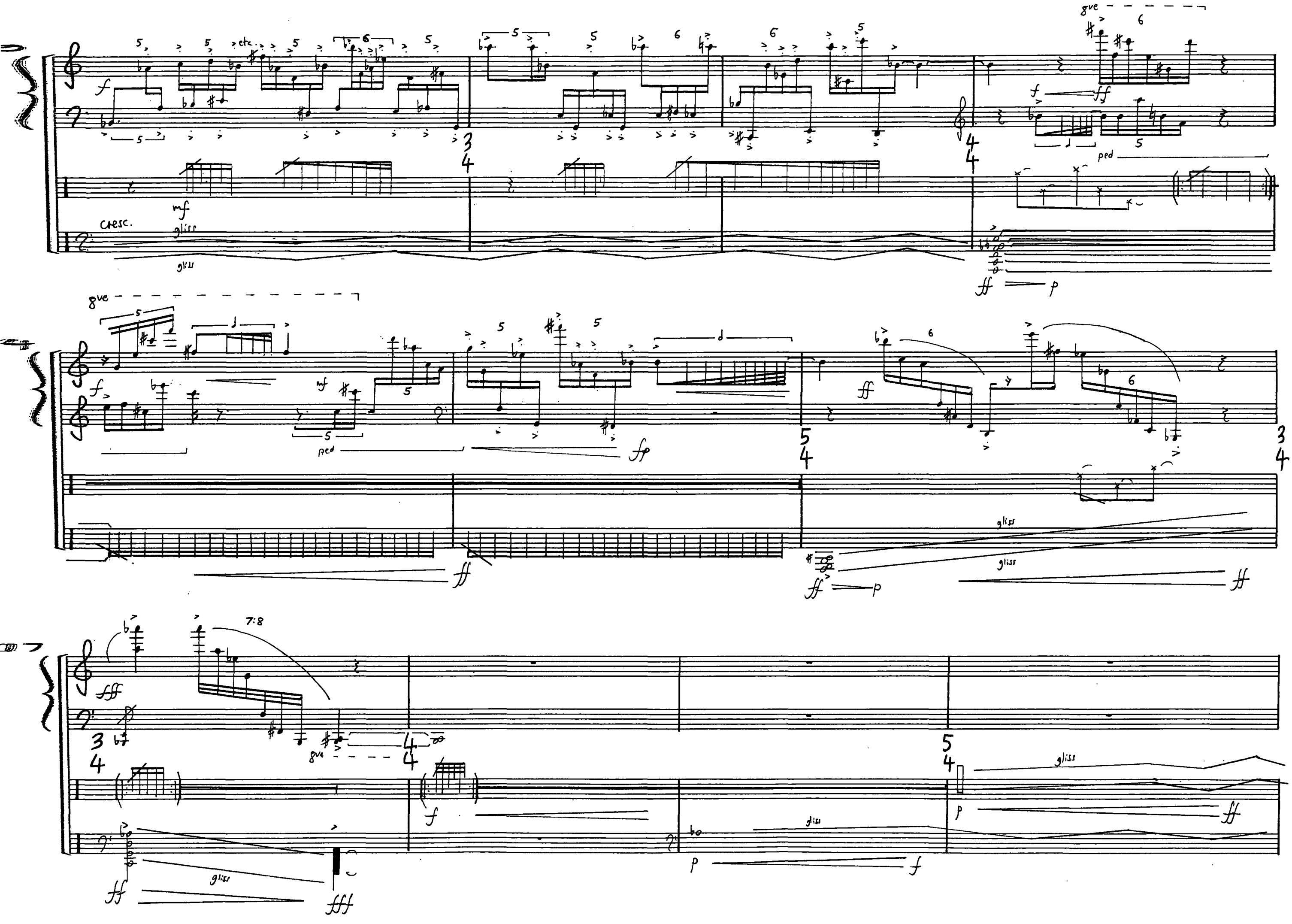
ped


65
pp
mf
p
ped.
gliss
69
f
74
mp
(tr)


distantly
78
mp
ped
ppp
7:8
sub.f
82
p
mf
ped
gliss
ppp
86
mf
f
gliss


90
8ve
f
mf
p
gliss
ped.
94
pp
97
mp
ff


100
103
107
8ve
8ve
7:8
ped
gliss
gliss
ped
sfz
sfz
sfz
sfz



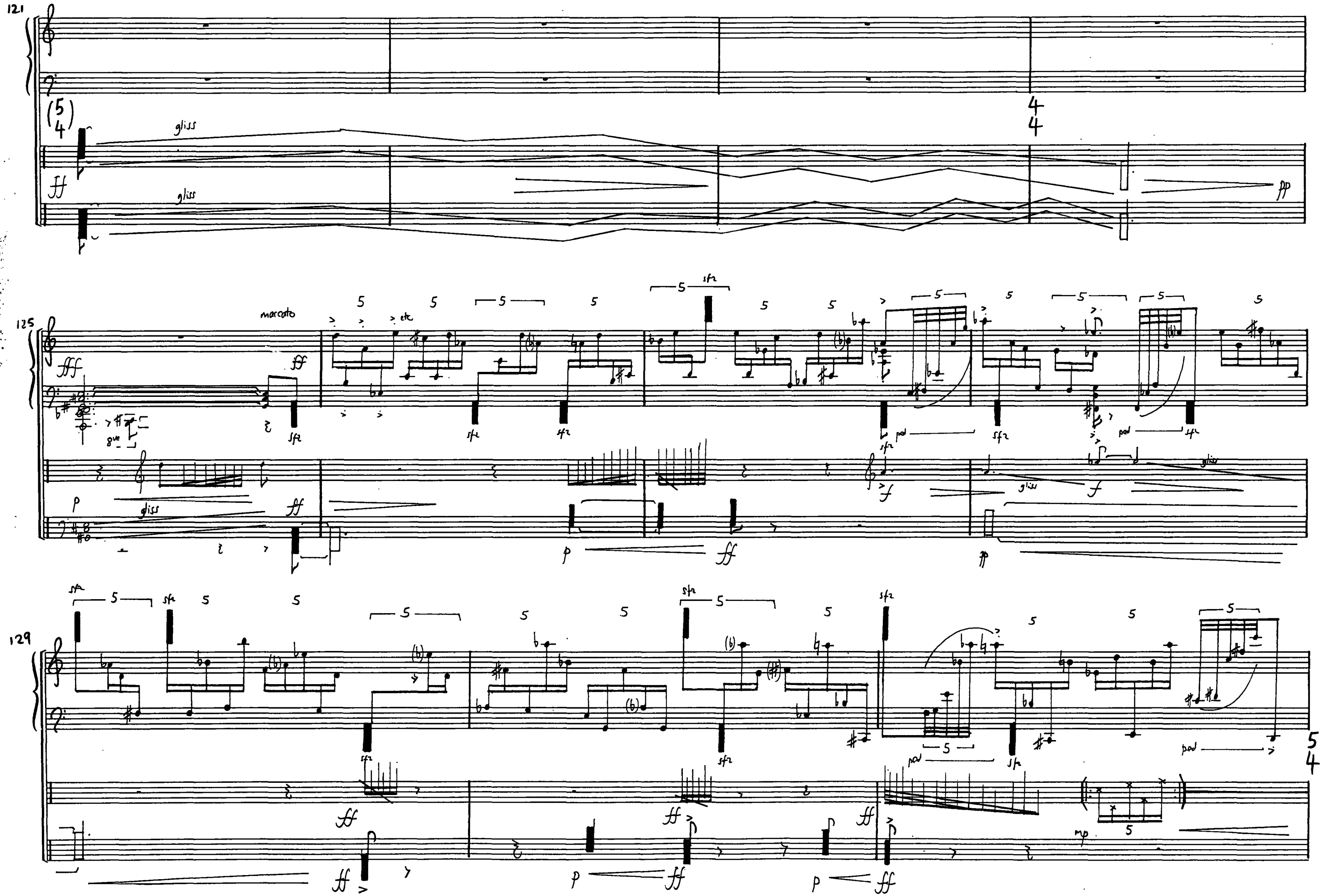
8ve
cresc.
mf
gliss
ped
ff
p
fp
7:8
fff

132

135

138

M. Young. Bangor Sept. 1994


121
gliss
gliss
125
marcato
etc
129